



2021386115

PHILIP MORRIS U.S.A.
INTEROFFICE CORRESPONDENCE
Richmond, Virginia

To: Distribution
From: J. L. Myracle *JLM/br*
Subject: Departmental Operational Planning Meeting

Date: February 3, 1993

To ensure that we are prepared to live up to our commitment to communicate responsibilities and objectives to everyone in the Department, a meeting will be held Monday, February 15 from 9:00 AM - 5:00 PM in A1 conference room to review our current status.

The goal of the meeting is to make a "final pass" prior to initial communication of '93 R's & O's to ensure for each project that we understand the "What" (what is to be accomplished, as well as what the results should look like), the "When" (priority and milestones) and the "Who" (resources internal to the department and external to the department). In addition a review of any support to other programs is expected.

The agenda is as follows:

- (1) Kick-Off - J. L. Myracle
- (2) Marketplace Driven Product Development - R. P. Heretick (10 min.)
 - Domestic - C. B. Altizer (1/2 Hr.)
 - Export - J. N. Smith (1/2 Hr.)
 - Licensee/Affiliate - A. H. Confer (1/2 Hr.)
- (3) Operations Driven Product Development - R. H. Cox (10 min.)
 - Marlboro/Processing Plant Support - V. E. Willis (1/2 Hr.)
 - Premium Brands - G. N. Yatrakis (1/2 Hr.)
 - Discount Brands - W. R. Bell (1/2 Hr.)
 - Factory Support/Packaging Tech - C. S. Kroustalis (1/2 Hr.)
- (4) Consumer Research - S. B. Nelson (10 min.)
 - Domestic - M. A. Jeltema (1/2 Hr.)
 - International - J. A. Jones (1/2 Hr.)
- (5) Product Technologies - R. P. Heretick (10 min.)
 - General - R. P. Heretick, et al (15 min.)
 - Filter Technology - K. A. Newman (1/2 Hr.)
 - Paper Technology - S. D. Baldwin/H. V. Lanzillotti (1/2 Hr.)
 - *120000*
- (6) Review of Capabilities, Services, and Responsibilities For:
 - Applied Statistics - J. E. Tindall (15 min.)
 - POL Operations - F. R. West (15 min.)
 - Product Development Services - J. R. Hearn (15 min.)

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FEB - 8 1993

R. P. HERETICK

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Your challenge is to get prepared, communicate your responsibilities succinctly and completely with overheads, and hard copies for the participants.

Please consider this meeting as a "stepping stone" in a process of communicating plans. In the next couple of weeks Don Leyden will present an overview of the R&D Strategic Plans to the department. This will be followed by another meeting where you will present your Operational Plans to the department. In addition we will need to communicate our plans to departments effected by them as time permits.

If you have any questions, please contact Dick Heretick, Richard Cox, Sam Nelson, Howard Spielberg or myself.

JLM:gmm

cc: Mr. C. B. Altizer
Dr. S. D. Baldwin
Mr. W. R. Bell
Mr. A. H. Confer
Dr. R. H. Cox
Mr. J. R. Hearn
Mr. R. P. Heretick ✓
Dr. M. A. Jeltema
Dr. J. A. Jones
Mr. C. S. Kroustalis
Mr. H. V. Lanzillotti
Mr. S. B. Nelson
Mr. K. A. Newman
Ms. J. N. Smith
Mr. H. L. Spielberg
Mr. J. E. Tindall
Ms. F. R. West
Ms. V. E. Willis
Mr. G. N. Yatrakis

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PHILIP MORRIS U. S. A.
INTER-OFFICE CORRESPONDENCE
Richmond, Virginia

To: Distribution **Date:** February 3, 1993
From: R. P. Heretick
Subject: 1993 RESPONSIBILITIES AND OBJECTIVES

A meeting is being scheduled for Monday, February 15 to review our Operational Plans for 1993. Additional details will be sent to you by Gloria on time and place.

The specifics of what is expected in hard copy and transparency for presentation includes:

Relating to projects

- what is to be accomplished
- what are the expected results (what do they look like)
- when (time table)
(priority)
- who within Product Development
from other departments/organizations

The key list of projects is to include those listed at our Friday morning staff meeting. If any projects have been added which will require resource allocations then please note them.

Responsibilities:

Marketplace driven product development	-	C. Altizer
Export Product Development	-	J. Smith/R. Slagle
Aff./Lic. Product Development	-	A. Confer
Product Technology (OV Consolidation - W. Claflin)	-	C. Altizer
Paper Technology	-	S. Baldwin
Project Happen	-	H. Lanzillotti
Filter Technology	-	K. Newman
Product Dev. Services	-	J. Hearn

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If there are any questions, please see me. I would like to review what is going to be presented no later than Friday, February 12.

In addition to project responsibilities, we will establish expectations beyond projects such as affirmative action, safety, performance management, team work and continuous improvement.

RPH:da

Distribution:

C. B. Altizer
S. D. Baldwin
W. E. Claflin
A. H. Confer
J. R. Hearn
H. V. Lanzillotti
K. A. Newman
R. S. Slagle/J. N. Smith

cc: R. H. Cox
J. L. Myracle
S. B. Nelson
H. L. Spielberg

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WHATS THE OBJECTIVE(S) OF THIS MEETING

- **TO INSURE THAT YOU HAVE THE INFORMATION NECESSARY TO COMMUNICATE R's AND O's BY 3/1/93.**
- **TO EVOLVE OUR ABILITY TO ENVISION RESULTS AND DETERMINE WHAT IT TAKES TO GET THERE.**
- **SET PRIORITIES.**
- **IDENTIFY MAJOR HURDLES.**
- **PERFORM A REALITY TEST ON WHAT WE THINK WE ARE DOING AND GOING TO GET DONE.**
- **INSURE THAT THE BASES ARE COVERED.**

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ADDITIONAL RESPONSIBILITIES

- **SAFETY- UNDERSTANDING, COMMUNICATING, MOTIVATING, ENFORCING JOB SAFE PRACTICES**
- **CONTINUOUS EDUCATION- COMMITMENT TO TEACHING OR LEARNING ABOUT THE BUSINESS**
- **PERFORMANCE MANAGEMENT- PEOPLE ASSESSMENT, DEVELOPMENT, SUCCESSION**
- **TEAMWORK- REAPING THE BENEFITS OF WORKING COLLECTIVELY IN ACCOMPLISHING BUSINESS STRATEGIES**
- **AFFIRMATIVE ACTION- MEETING OR EXCEEDING THE COMPANIES MISSION THROUGH PROACTIVE PARTICIPATION IN THE PROCESS**
- **INNOVATIVENESS- BETTER, QUICKER, FASTER, COST EFFECTIVENESS**
- **FIDUCIARY- SPENDING THE COMPANIES MONEY LIKE IT WERE YOUR OWN AND PROTECTING THE COMPANIES ASSETS**
- **CELEBRATING ACCOMPLISHMENTS- RECOGNIZING A JOB WELL DONE, UTILIZING AWARD PROGRAMS**

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SUPPORT TO OTHER PROGRAMS

New Expanded Tobacco

GNY

Sensory Technology

GNY

New Primary Process

WRB

NBL/CL

VEW

R&D Strategic Plan



Operational Plan objectives

- operations driven
- market place driven
- etc



Projects

- what
 - what is to be accomplished
 - what do results look like
- when
 - priority
- who
 - internal
 - External

also

Expectations Beyond
Program Resp.

- IFF in Action
- Safety
 - Dev. Plans
 - R & D's team
- P, L, mgmt.

- hard copy
- over head

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FUNCTIONAL GROUPS - RESOURCE BUCKETS

Domestic Product Development	RPH-CBA
Export Product Development	RPH-JNS
Lic./Aff. Product Development	RPH-AHC
Domestic Flavor Dev. & Tech. Support	RHC-GNY
Int'l. Flavor Dev. & Brand Support	RHC-VEW
Flavor Investigations & Support	RHC-CSK
Domestic Consumer Research	SNB-MAJ
Int'l. Consumer Research	SBN-JAJ
Paper Technology	RPH-SDB
Filter Technology	RPH-KAN
Applied Statistics	SBN-JET
POL Operations	SBN-FRW
Product Dev. Services	RPH-KAN-JRH

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PROGRAM BUCKETS

Domestic Marketplace Driven Prod. Development	RPH/CBA
Int'l. P.D. - Export (MD & OD)	RPH/JNS
Int'l. P.D. - Lic./Aff. (MD & OD)	RPH/AHC
Domestic Operations Driven Product Dev.	RHC/VEW-GNY
	WRB-CSK
Product Technology	RPH/CBA/GNY
Filter Technology	RPH/KAN
Paper Technology	RPH/SDB-H.L.
Packaging Technology	RHC/CSK
Consumer Research Technology	SBN/MAJ
Consumer Research Technology	SBN/JAJ
Applied Statistics	SBN/JET
POL Operations	SBN/FRW
Product Dev. Services	RPH/KAN-JRH

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MANAGEMENT TEAM

Operating Principles

- Openness
- Honesty
- Participation
- Shared Ownership Of Outcomes (Stakeholders)
- Level Playing Field

Goals

- Determining "What's Best" For The Business and "What's The Best Way" To Get There
- Commitment to "Buy-In" And Participation In The "Best Way"

What's "Best" For Achieving These Goals?

- Minimizing Functional Ownership
(People, Assets, Results)
- Maximizing Facilitation Of Results
- Facilitating Team Buy-In
- Defining Who, What, When For Teams
- Teams Define How-To

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RELATIONSHIP

Customer - Supplier

vs.

Equality In Participation & Ownership In
Achieving Results

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MANAGEMENT TEAM CONTINUOUS IMPROVEMENT

'92 GOAL

- Enhanced Teamwork

'93 GOAL

- Enhanced Communication
 - Teaching
 - Learning
 - Describing Objectives/Results
- Decision Making Process
 - How To
 - What Do They Look Like
 - How Do We Know We've Made One
 - Who Can Make Them & When

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Leaf Blending

2021386129

from HKS

PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: . Mr. W. K. Riggan
From: . Brad Scott
Subject: . ASIAN PROJECTS - 1993

Date: February 3, 1993

MALAYSIA

1. **Marlboro Menthol 85mm FF - New Product**

- January 18, 1993 - Prototype production in Malaysia utilizing 60% BBS/40% Local.
- February 8, 1993 - Production start-up.
- February 22, 1993 - Product launch date.

2. **Chesterfield 85mm FF - New Product**

- March 1, 1993 - Prototype production in Malaysia utilizing 50% BBS/50% Local.
- April 1, 1993 - Product test, compilation of results
- June 1, 1993 - Product launch date.

INDONESIA

1. **Marlboro 85 mm FF/LTS. - Conversion from Cutfiller to BBS**

- March 8, 1993 - Prototype production in Indonesia utilizing 90% BBS/10% Local.
- 3rd Quarter 1993 - Product changeover date, may vary depending on evolution of tax laws governing duty rates on cutfiller.

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February 3, 1993

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JAPAN

1. 8mg Product Ex-Richmond (Name to be determined) - New Product

Target Brand: Kent Special Milds

- February 8, 1993 - Prototype production in Semiworks
- 2nd Quarter 1993 - Product testing in Japan.
- 2nd/3rd Quarter 1993 - Product launch - pending test results.

HONG KONG

1. Menthol Product Ex-Richmond (Name to be determined) - New Product

Target Brand: Salem 85mm FF/Lts.

- January 25, 1993 - Prototype production in Semiworks.
- 2nd Quarter 1993 - Product testing in Hong Kong.
- 2nd/3rd Quarter 1993 - Product launch - pending test results.

PHILIPPINES

1. Va. Slims Menthol 100's - New Product

- 2nd Quarter 1993 - Pending test results of a prototype utilizing the current PM 100's Menthol blend, blend development may be required.

CHINA

1. Marlboro - New Product

- 1993 - Pending negotiations with CNTC, Marlboro production from cut filler ex-Richmond will commence in Shanghai. The product would then be changed over to a BBS product, 60% BBS/40% Local, one year later.

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February 3, 1993

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INDIA

1. Marlboro - New Product

- **1993** - Once details are worked out, Marlboro produced from cutfiller ex-Richmond or BBS will commence. Details are sketchy at the moment.

THAILAND

1. Marlboro - New Product

- **1993** - Pending final negotiations with the Thai monopoly, Marlboro produced from cut filler ex-Richmond will commence.

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PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: . Mr. W. K. Riggan

Date: February 3, 1993

From: . C. E. Hatcher

Subject: . **PROJECTS - 1993**

1. Direct the implementation of a standardized grading system in the Dominican Republic based on PM USA standard grades.
Time Frame: March, April, May 93
2. Develop and direct the Implementation of a standardized grading system in Venezuela, i.e. buying grades, regrades and packing grades. The system will be based on PM USA standard grades.
Time Frame: February, March, April, May
3. Develop and executive offshore leaf purchasing plans for Panama, Dominican Republic, Mexico and Venezuela. Purchasing will be done by PM leaf buying personnel.
Time Frame: March, October, November 93
4. Develop blends for new product development in Costa Rica, Ecuador and Brazil. Coordinate with R&D prototype production and select through subjective evaluations the most acceptable prototype to submit to Richmond Panel.
Time Frame: June, July 93
5. Develop long term strategies with Richmond Agronomy Group to improve tobacco production in several Latin American countries.
Time Frame: July, August, September 93
6. Participate in the physical and subjective evaluation of current years crop in Ecuador, Guatemala, Dominican Republic, Venezuela and Panama.
Time Frame: September, October, November 93

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LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: . Mr. W. K. Riggan
From: . C. Mbogalian
Subject: . 1993 PROJECTS

Date: February 3, 1993

NET - The following brands are scheduled to incorporate the NET 3-component blend at increased levels:

B&H
B&H Ultra Lights
Va. Slims
Va. Slims Lights
Va. Slims Ultra Lights
Parliament
Saratoga
Merit
Merit Ultra Lights

Other brands may be included if the production capacity of 3 shifts at Bermuda is desired.

February 15 - Complete evaluations on initial prototypes of B&H Ultra Lights, Va. Slims, Va. Slims Lights, Va. Slims Ultra Lights, Parliament, Saratoga, Merit Ultra Lights.

March 1 - Complete POL repeats for B&H and Merit (first POL's were okay).

March 15 - Possible decision on additional brands to contain NET.

April 1 - Complete POL's for B&H Menthol and Merit Ultra Lights.

June 1 - Complete Danchi testing for Parliament, Va. Slims Menthol and perhaps Iark.

September 1 - Qualify Bermuda NET for production.

September 15 - Complete factory trials.

October 1 - Complete POL's with Bermuda NET. Begin brand implementation with NET.

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Merit Superlights (3mg)

1st Qtr. 93 - 3rd series POL testing

2nd & 3rd Qtr. - Factory trials

4th Qtr. 93 - Specifications.

Component Dicing - Ongoing

Project Tomorrow - Ongoing

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INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: . Mr. W. K. Riggan

Date: February 3, 1993

From: . C. S. Brumberg

Subject: . 1993 PROJECTS

- **January - May** → Japan Diet Development
- **June - November** → Reduction of PM supplied blend components
- **Nov. 93 - June 94** → Integration of JT manufactured ET
- **October - December** → Blend conversion to new JT grading system
- **Ongoing** → Competitive Analysis - USA
- **Ongoing** → Competitive Analysis - JT

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PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: Mr. W. K. Riggan

Date: February 3, 1993

From: C. W. Arterbery

Subject: **PROJECTS - 1993**

1. Reformulate all cigarette blends to incorporate reduced humectants in recon, unwashed burley stems and reduced alcohol in Burley top casing.
Time Frame: January
2. Direct the development of on-line computer for calculating blend costs.
Time Frame: February and March
3. Complete design of competitive analysis model.
Time Frame: April, May
4. Develop system to generate minimum and maximum tobacco usages of all off-shore tobaccos.
Time Frame: February, March
5. Update Five Year Plan
Time Frame: Ongoing
6. Training Items:
 - How to calculate cost/1000 cigarettes.
 - How to calculate weight adjustments for circumference and volume changes.
 - How to calculate silo adjustments.
 - How to calculate weight adjustments for moisture increases/decreases in blends and blend component.
 - How to develop a blend lay down.
 - How to calculate Inventory and Usage.
 - Excel Training.**Time Frame: Ongoing**

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PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: . Mr. W. K. Riggan

Date: February 3, 1993

From: . K. F. Heidsieck

Subject: . **1993 PROJECTS**

1. Blended Strips Reformulation

Trials @ MZM - produce new blend vs. existing, make Semiworks cigarettes and evaluate subjectively.

2. Worldwide Marlboro/Corp. Brands Subjective Evaluation - ongoing.

3. BBS to PME - change casing gains on burley (Project Amethyst) portion of blends.

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PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: Mr. W. K. Riggan
From: O. Miller Buchanan
Subject: **PROJECTS - 1993**

Date: February 3, 1993

1. **Deep Discount Brands**

March 1, 1993 - Adjust blend to reduce cost but retain subjective advantage versus Monarch.

- Monitor inventories of grades for this blend and work with buyers to maintain durations through selection of suitable purchases.
- Seek opportunities to further reduce costs/increase competitive advantage. Currently, inclusion of ET and/or stem distillation are being evaluated.
- Update and utilize Competitive Analysis to monitor competitors' brands.

2. **Technology Assimilation**

March 31, 1993 - Assist in the evaluation of the Hauni Steam Tunnel to determine if increased filling power or improved subjectives can be achieved.

Investigate the effects of higher stem level targets to determine if they will result in improved stemmery yields.

3. **Off-Shore Inventory** - Ongoing

Establish Inventory System which will enable the purchase and the usage of small tobacco lots in a systematic and controllable manner. The nature of this type of usage affords considerable cost savings, but alternatively lends itself towards fluctuation in delivery and subjective character. The system must allow for frequent changes balancing usage for uniformity.

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PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: Mr. W. K. Riggan

Date: February 3, 1993

From: R. E. Keatts

Subject: PROJECTS - 1993

1. Marlboro - Offshore Inclusion Program

March 1, 1993 - 2 cases BF45 replacing 1 hhd. PT in #18A Bright.
Factory Trial week of February 8.

July 1, 1993 - 2 cases bodied BOS added on to DBC Burley (change B).
Factory Trial week of April 15.

September 1, 1993 - 2 cases (1 bodied, 1 thin) added on to DBC (change C).

2. Marlboro - 14% BLDET

November 1, 1993 - incorporate Oriental into BLDET and increase
expanded blend to 14%. May Factory Trial - June POL shipment.

3. N.P.P. with Hauni Steam Tunnel

Maximize profitability of Deep Discount brands by utilizing new methods to
achieve maximum filling power while maintaining subjective acceptability.
March 31, 1993 Recommendations for tunnels in factory. 4th quarter -
maximum savings.

4. BRICA - 4 - blend change March 1 and evaluation of grade substitutions
for long term suitability.

5. Pool Purchases - develop usage plan for discounted pool tobaccos.

6. Chesterfield/L&M Blend Consolidation - May 1.

7. Oriental Blends - Usage Plans

Due to a disastrous 1991 crop in Turkey, Greek B and Kappa grades
must be substituted to make up shortfall - June 30.

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8. Marlboro Standardization

Monitor blend lines and Primary Processing Profiles during standardization runs.

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PHILIP MORRIS U.S.A.

INTER-OFFICE CORRESPONDENCE

LEAF BLENDING GROUP

RICHMOND, VIRGINIA

To: W. K. Riggan

Date: February 3, 1993

From: L. C. Jennings

Subject: 1993 PROJECTS

Please find a listing of projects that I will address during 1993 and the expected completion.

1. Factory Add-backs

1st Qtr. - Issue add-back rates for ET, deep generics and standard brands. Issue protocols for handling returned cigarettes, promotion cigarettes and cut filler deviations. Establish cut filler reclaim uniformity between factories.

On Going - Monitor generation with usage potential. Evaluate abnormal rework cigarettes OV cut filler deviations some cigarette testing maybe required.

2. Burley Stems in ES/IS for Deep Discount Brands

1st Qtr. - Conduct Factory Production Testing with 70 FC/30 Bur stem blend at LSPP. Flavor work required (lactic acid) by R&D and physical/subjective testing.

2nd Qtr. - Semiworks cigarette manufacturer using new stem blend, product evaluations. If successful process modification to implement during 3rd quarter.

3. Stemmy Discard Dust Recovery

1st Qtr. - Engineering to have completed Stemmy production tests. Conduct Pilot Plant samples for physicals and subjectives.

2nd Qtr. - Conduct large scale production test at BL Plant. Evaluate for possible 3rd quarter usage.

4. Opt. Particle Size Determination

1st Qtr. - Small lamina results presented modifications in handling small lamina will be addressed prior to next crop processing.

3rd Qtr. - Complete cut filler evaluations on opt. particle size.

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5. In-Line processing of large scrap at Park 500.

3rd Qtr. - Determine feasibility of implementation based on cost/handling impact.

Install equipment during winter shutdown.

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DOMESTIC - MARKETPLACE DRIVEN PRODUCT DEVELOPMENT

WHO: RPH/CBA-MAJ

WHAT:

#1's Marlboro RX
Merit 3 mg
Slims KS
(Mid-Price KS)

#2's Marlboro Ultra Lights (NET, 10-058-A Paper)
Merit Ultima Menthol
B&H King Size Line Extension(s)
Merit Family - Tar Reposition
Parliament Lights Menthol

#3's Marlboro Extra

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Domestic

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1993 -1997 Five-Year Plan Program Summary

Program: Domestic Product Development

Category: Market Place Driven **Included in 1992-1996 Plan:** Yes

Start Date: 1992 **Completion Date:** _____

Program Description: This program addresses product development from the position of executing initiatives identified as market driven. The program encompasses Trademark Portfolio management opportunities, brand extensions and repositionings, and new technologies that when incorporated add value to our premium brands.

Importance to PM-USA: Provides opportunity for increased market share and increased volumes thus providing growth in income and cash flow for P.M.U.S.A.

Program Benefits:

1. Provides a vehicle to address alternate purchases of P.V. brands vs. Premium brands.
2. Vehicles for R&D to support P.M.U.S.A. business plan.
3. Provides vehicle to execute opportunities in market identified by Marketing and Market Research.

Program Leadership:
Functional Area: Dom. Prod. Dev. **Department:** R&D **Program Leader:** C. B. Altizer

Support Required From **1993 Man-Years** **Leadership Dept. (93)**

Engineering	3.00	23.27
Manufacturing Services	0.15	
Technical Services	0.20	

Capital Requirements (93) \$ _____ **1993-1997 \$** _____ **650 Timing** _____

Program Milestones	1 9 9 3				1 9 9 4				1 9 9 5				1 9 9 6				1 9 9 7			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Marlboro RX																				
Merit 3mg																				
Va. Slims K.S.																				
Mid-Price K.S.																				
Marlboro Ultra Lights																				
Merit Ultima Menthol																				
B&H K.S. Ultra Lights																				
Merit Family Repositioning																				
Parliament Lights Menthol																				
Marlboro Extra (On Shelf)																				
POL Administration																				

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Program Summary

Start Date:	1992	Completion Date:	Ongoing
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1993 -1997 Five-Year Plan Program Summary

Category	Product Technology	Included in 1992-1996 Plan
Computer Hardware	IBM PC compatible hardware	Yes
Software	IBM PC compatible software	Yes
Peripherals	IBM PC compatible peripherals	Yes
Networks	IBM PC compatible networks	Yes
Telecommunications	IBM PC compatible telecommunications	Yes
Security	IBM PC compatible security	Yes
Other	IBM PC compatible other	Yes

Start Date: Opening Completion Date:

Program Description: This program provides the vehicle for incorporation and evaluation of newly

100

<u>Support Required From</u>	<u>1993 Man-Years</u>	<u>Leadership Dept. (93)</u>
Manufacturing Services	0.05	8.96
Technical Services	0.05	

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Program Summary

Start Date: 1992 **Completion Date:**

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Domestic Product Development Marketplace Driven



Marlboro RX #1

Objective

- 72mm Full Flavor, Lights, Medium
- Subjectively Equal to KS Counterparts
- Alternate Purchase Appeal
- Trade-Off Image vs. Price

Some blend
costing a flavor system
for puff } as
KS

Milestones

- Pricing Test/Ad Pack
- Preliminary Cigt. Specifications
- Factory Samples Run #1
- Factory Samples Run #2
- Roll Stamp Test in Louisville
- Lights Factory Trial Run
- Final Artwork Approval
- Production Quantities Defined
- Cylinders Engraved
- Materials Delivered to Louisville
- Materials Approved for Production
- 1st Complex Production Ready
- Production Start-up
- National Introduction

<u>SP</u>	<u>FTB</u>
COMPLETE	
COMPLETE	
COMPLETE	
COMPLETE	
COMPLETE	
March	
4/8	5/10
4/8	5/10
5/5	6/3
5/14	6/14
5/18	6/16
5/18	6/16
5/18	6/16
September	

What is the Tor spec
14 or 14.5 → to grade
or 1.8 Tor/puff



cba.2/93

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Domestic Product Development Marketplace Driven



Marlboro RX #1

Results of Milestones

- -.35 and -.40 from KS pricing generated interest greater than expected in terms of purchase intent
- When machinery start-up occurs, we will use these specs as a basis for generating modified final specs.
- Factory samples resulted in 16 tar/9 puff cigt. as requested from upper management
- Roll stamp test - feasibility of reducing stamp from 42 to 40mm for pack aesthetics
- Lights factory trial preliminary spec for Lights product
- Approval of materials and finished printed materials to coincide with production capability
- All of the above outcomes from Milestones, support the National Intro.

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Domestic Product Development Marketplace Driven



Marlboro RX

Team Members

Vinson, Altizer, Spruill
Guy, Wooldridge
Jeanrenaud
Cline, Greenlee
Hoskin, Inge
Deane
Mait
Burgess, Crostic
Jeltema/Joyner
Foster
Kuhn
Eisen
Della Crosse
Taylor

Domestic Product Development
Engineering
Purchasing
PTS
Semiworks
Flavor Technology
Packaging Technology
Operations Services
PED
Commercial Development
Quality Engineering
Consumer Research
NY Packaging
MF Brand Manager

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Domestic Product Development Marketplace Driven



Mid Price King Size #1

Objective

- Product Definition Being Research
- Competitive with Camel
- Attract Young Adult Smokers

Milestones

- | | |
|------------------------|---------------|
| • Consultant's Results | 2nd Qtr. 1993 |
| • Project Planning | 2nd Qtr. 1993 |

Team Members

- | | |
|----------------------------|------------------------------|
| • Atkinson/Spruill/Altizer | Domestic Product Development |
| • Taylor | Flavor Technology |
| • Mahan | Marketing, Price Value |

→ P E D
K e e b B l o n d e n e y

Results of Milestones

- Provide and define project objective
- Planning will provide what, who and when for project execution

2021386154



Domestic Product Development Marketplace Driven



Merit 3mg (Superlights) #1

Objective

- 3mg Tar Product
- Acceptable to Ultra Lights Smokers
- Equal Taste at One Half Tar

→ Expand
Among who
Against what
The Plan
Statement of
Results

Milestones

- Rep 1/Rep 2 POL's (NET)
- DIET Backup Prototypes
- DIET Backup POL's Decision
- POL (Current NET Blend Proposed for Premium Brands)
- Meeting with Brand Management
- Preliminary Cigarette Specifications
- Plans for Merit 3mg Program (Marketing Objectives)

Complete
February
June

February
March
April
April

Results of Milestones

- POL Reps will provide documentation that a NET Merit 3 is developed
- DIET backup will provide Merit 3 availability should launch be needed prior to NET availability
- Meeting with Brand Management will provide direction for additional work necessary to ready product for marketing research, promotions and launch

2021386155



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where are the smokers going
to come from

key → Product Development
Objective

Domestic Product Development Marketplace Driven



Merit 3mg (Superlights) #1

Team Members

Monahan, Spruill, Altizer	Domestic Product Development
Skalak, Yatrakis	Flavor Technology
Moogalian	Leaf Blending
Manwaring, Jeltema	PED
Peace	NET Development Team
Laslie	Filter Technology
Foster	Commercial Development
Suter	Brand Manager

2021386156



Domestic Product Development Marketplace Driven



Virginia Slims King Size #1

Objective

- Extend Trademark Equity of Virginia Slims 100's
- King Size Regular and Menthol Line Extension
- Attract Young Adult Females
- Offer a Female KS Slims Product that Young Adults are Comfortable With
- Menthol Version Should Gain Share from Newport

Milestones

- POL Testing → *What are we measuring?*
 - Lights (Rep1 & 2)
 - 02079 (Lights/Rep 3)
 - Medium (Rep 1 & 2)
 - 02103 (Medium/Rep 3)
 - 04047 (Lights Menthol/Rep 1)
 - 04048 (Medium Menthol/Rep 1)
- Team Meeting with Brand Manager To Establish Program Based on Booklet Pack Redesign
- Quantitative Test (Cohen)
- Selective Intro. Test (Cohen)
- Full Market Intro. (3.5 billion per year)

Complete
In field
Complete
Analytical
Analytical
Analytical

February 17
1st Qtr. 1993 → *define details!*
4th Qtr. 1993
Mid-1994



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Domestic Product Development Marketplace Driven



Virginia Slims King Size #1

Results of Milestones

- POL testing will result in verified preliminary specifications
- Meeting with Brand Management will establish direction for Booklet pack
- Quantitative test will evaluate interest line in cigarette/Booklet pack
- Selective Intro will measure share potential



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Domestic Product Development Marketplace Driven



Virginia Slims King Size #1

Team Members

Newman, Wettle, Spruill,
Altizer

Domestic Product Development

Cravotta

Flavor Technology

Manwaring, Fleming,
Jeltema

PED

Brookman, Wooldridge

Engineering

Cohen

Brand Manager

Foster

Commercial Development

2021386159



Domestic Product Development Marketplace Driven



Merit Ultima Menthol #2

Objective

- Menthol KS/100mm Line Extension
- Menthol Option for Lowest Levels of Tar
- Better than Carlton & Now Menthol — among who

Position as
Related to what do
we want to Accomplish

Milestones

- King Size Menthol (Final Rep)
 - POL 04044
- 100mm Menthol (Final Rep)
 - POL 06021
- Utilize CA Filters (Enhance Menthol Level)
- POL Testing Utilizing CA Filter
- Meeting With Brand Management to Review Merit Family and Establish Objectives

Make/Pack

Make/Pack
February
Decision
February

March

meeting to
define
objectives

testing Requirements - i.e. extended use test because of higher than that delivery objective

Results of Milestones

- POLs will measure the performance versus objective
- Meeting with Brand Management will establish objective for work in supporting launch/promotions of products



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Domestic Product Development Marketplace Driven



Merit Ultima Menthol #2

Team Members

Monahan, Spruill, Altizer	Domestic Product Development
Pflueger, Shelton, Yatrakis	Flavor Technology
Patron, Laslie, Newman	Filter Technology
Fleming, Jeltema	PED
Foster	Commercial Development
Suter	Brand Group



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2021386161

Domestic Product Development Marketplace Driven



Marlboro Ultra Lights #2

Objective

- 6mg Line Extension in KS and 100mm
- Provide Product to Smokers Over 45 Down-Switching
As They Grow Older
- Provide Product to Down-Switchers from Marlboro Lights
- Utilize Technologies (NET/10-058-A Paper) -- Maximize
TPP With Less Ventilation

Milestones

- Test Markets Nashville, Portland,
Indianapolis
- NET/10-058-A Cigarette Paper
Prototypes
- Evaluate NET/10-058-A Cigarette
Paper Prototypes
- Ready for Launch

Continuing

Analytical

1st Qtr. 1993
3rd or 4th Qtr.
1993

Results of Milestones

- NET/10-058 cigarette offer a measure to assess
improvement versus current test market product



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Domestic Product Development Marketplace Driven



Marlboro Ultra Lights #2

Team Members

Vinson, Gannon, Altizer	Domestic Product Development
Skalak	Flavor Technology
Goodman, Baldwin	Paper Technology
Peace	NET Development Team
Manwaring, Jeltema	PED
Foster	Commercial Development

2021386163



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Domestic Product Development Marketplace Driven



Parliament Lights Menthol #2

Objective

- Parliament Lights Menthol Competitive with Newport Lights for Region I Test Market Taking into Account that:
 - Parliament Does Well in Region II
 - Menthol Does Well in Region I
 - Parliament Lights Menthol Provides Opportunity to Address Newport and Salem in Region I

Milestones

- Factory Trial Packets (11mg and 13mg)
- Factory Trial (11mg/13mg)
- Cigarette Specifications

*idea from the
3x14 KS. hts. menthol
product*

Complete

2nd Qtr. 1993

2nd Qtr. 1993

Results of Milestones

- Product choice and specifications ready for launch i.e. shelf item

2021386164



Domestic Product Development Marketplace Driven



Parliament Lights Menthol #2

Team Members

White, Altizer	Domestic Product Development
Shelton	Flavor Technology
Foster	Commercial Development
Parmet	Brand Manager

2021386165



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Domestic Product Development Marketplace Driven



Merit Family Repositioning #2

Objective

- Reposition MUL from 5mg to 6mg and Merit from 8mg to 9mg
- Maximize Tar for Current Products
- Offers Position for Additional Line Extensions

Milestones

- | | |
|---------------------------|---------------------|
| • Consumer Testing | Complete |
| • Transfer Specifications | As Requested |

Results of Milestones

- Products ready for repositioning as requested

2021386166

Domestic Product Development Marketplace Driven



Merit Family Repositioning #2

Team Members

Monahan, Altizer

Domestic Product Development

Manwaring, Jeltema

PED

Skalak

Flavor Technology

No. Suter

Brand

2021386167



cba.293

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Domestic Product Development Marketplace Driven



Benson & Hedges King Size Ultra Lights #2

Objectives

- Develop Cork Tip King Size Regular and Menthol Line Extension that Offer Premium Image Option for Down-Switchers
- Leverage DUL 100's Dominance Among Younger More Ethnic Smokers
- Capitalizes on UL Segment's Growth Same as Other Brands that have Ultra Light Entries

Milestones

- Proposed Tar/Puff and Menthol/Puff Defined for 6mg UL Product (0.7 tpp & .05-.06 mpp)
 - Menthol Prototypes
 - NET Incorporation
 - Regular POL's
 - Menthol POL's
- March
March
2nd Qtr. 1993
3rd Qtr. 1993**

Results of Milestones

B&H KS line extensions specified and verified

2021386168



Domestic Product Development Marketplace Driven



Benson & Hedges King Size Ultra Lights #2

Team Members

White, Altizer	Domestic Product Development
Cravotta	Flavor Technology
Foster	Commercial Development
Henriques	Brand Manager
Wooldridge	Engineering



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Domestic Product Development Marketplace Driven



Marlboro Extra #3

Objectives

- Provide Alternative to Camel Wides
- Develop 26.5mm x 83mm Lights and Full Flavor Products
- Recapture Marlboro Out-Switchers
- Create 'New' News About Marlboro
- Value Added Concept
- Enhance Male Image of Marlboro

Milestones

- | | |
|--------------------------------------|-----------------|
| • Focus Groups | Complete |
| • Product for "Single Stick" Ad Pack | Complete |
| • Shelf Item | |

Results of Milestones

- Shelf product that can be reactivated and updated should need be dictated by Camel Wides performance in marketplace.

2021386170



Domestic Product Development Marketplace Driven



Marlboro Extra #3

Team Members

Altizer, Newman, Spruill	Domestic Product Development
Guy, Wooldridge	Engineering
Hoskin, Inge	Semiworks
Callaham	PED
Foster	Commercial Development
Eisen	Consumer Research
Taylor	Marlboro Brand Manager
Woodson	Flavor Technology

2021386171



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Product Technology



Low Smoke/Low Odor

Objective

- King Size and 100mm Products Incorporating Product Technologies:
 - Low Sidestream
 - Low Aroma
 - Added Aroma
 - Combinations
- Social Benefits
 - Smoker
 - Non-Smoker
- Offers Lower Visible Sidestream Smoke, Pleasant Sidestream Aroma, Lower/Neutral Sidestream Aroma
- Incentives to Purchase

Milestones

- | | |
|---|--------------------|
| • POL Testing | Complete |
| • Quantitative Studies | Complete |
| • 60% Visibility Reduction | March |
| • Presentation of Consumer Research to Marketing | February |
| • Preparation of Cigarettes For CR 2978 Smoking Studies | March-April |

Results of Milestones

- Studies indicate a viable technology for added value
- 60% visibility reduction provides enhanced added value
- Marketing presentation generates brand interest
- Phase 4 clearance should result from CR2978 studies



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Product Technology



Low Smoke/Low Odor

Team Members

Newman, Wettle, Spruill,
Altizer

Domestic Product Development

Goodman, Floyd, Tafur,
Baldwin

Paper Technology

Joyner, Fleming, Jeltema,
Callahan

PED

Lopez

Market Research

Cravotta

Flavor Technology

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Domestic Product Development Support to Other Programs



Product Technology Support

All Lamina	White, Gannon, Spruill
Distinctive Flavors	Monahan, Spruill
Cigarette Design Model	Newman
All Recon Cigarette	Atkinson
OV Consolidation	Atkinson, Gannon

Domestic Operations Driven Product Development Support

Marlboro

#1's LBO-12 Blend Reduced Humectants (In RL-BL)/Grain LBO-12 Increased Offshore Inclusion Marlboro 14% BLDET Marlboro Control Region Monitors	Atkinson, White
--	-----------------

OPB

#1's NET Inclusion Multifilter Cut Filler Consolidation	Peace Gannon
#2's Wood Pulp Paper Utilization Menthol Application (Foil & Kaymich)	White Monahan

Discount

#1 Brica Blend (IV) & Weight Reduction Program (NPP, Steam Tunnet)	Rockwell
#2 Diced Cut Strip	Rockwell



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Domestic Product Development Support to Other Programs



Domestic Operations Driven Product Development Support (continued)

Factory Support

#1's Small Scale Semiworks
Qualification

Gannon, White

Processing Plant Support
BL/RL

Peace, Atkinson

Paper Technology

Banded Cigarette Paper
Wood Pulp Paper Development
Reduced Sidestream Paper
Development

Newman, White
White

Newman, Wettle

Support To Other Programs

New Expanded Tobacco
New Primary Process
NBL/CL

Peace
Rockwell
Peace

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Domestic Product Development



Other Active Programs

6mg Merit	Monahan, Spruill
POL Support Market & Operations Driven	Atkinson
B&H KS Packer Qualification	White
De Nic	Gannon, Monahan, Spruill

2021386176

Export

2021386177



INTERNATIONAL PRODUCT DEVELOPMENT

EXPORT PRODUCTS RPH/JNS

MARKETPLACE DRIVEN

Japan Region

- 1 - Product Launches
- 1 - Next (DLS)
- 1 - JT Marlboro DIET Inclusion (JHH)
- 1 - Lark Lights (DLS)
- 1 - Merit Ultra Lights (RAT)
- 2 - Lark Ultra Lights (CRL)
- 2 - Low Tar Blend Development (CRL)
- 3 - PM Ultra Lights (RAT)

Asia Region

- 1 - Product Launches - Taiwan (JBE)
- 1 - Product Launches - Hong Kong/Macau (JBE)
- 1 - Product Launches - Korea (DLS)
- 1 - Product Launches - Thailand (VLG)
- 1 - Product Launches - Singapore (DLS)
- 1 - Merit Lights Optimization - Korea (DLS)
- 1 - Marlboro Optimization - Korea (DLS)
- 1 - Pan Asia Menthol (JHH)
- 2 - Parliament Ultra Lights - Japan/Korea (VLG)
- 2 - Tar Reduction Programs - Japan/Korea
- 2 - Marlboro Monitoring

Europe Region

- 1 - Product Launches - GCC (RAT)
- 1 - Product Launches - Russia/CIS (VLG)
- 1 - Product Launches - EEMA (RAT)
- 1 - Product Launches - EEC (RAT)
- 2 - Marlboro LS → KS Conversion

Global Programs

- 1 - Product Launches - DF (JBE)
- 2 - New Technology Applications

2021386178

INTERNATIONAL PRODUCT DEVELOPMENT



EXPORT PRODUCTS RPH/JNS

OPERATIONS DRIVEN

- 1 — Porous Combining Wrap (CRL)
- 1 — Carbon Consolidation (CRL)
- 1 — Dual Hopper Max (CRL)
- 2 — Pin Perforation Technology (VLG)
- 2 — JT. Marlboro Factory Location Change (JHH)
- 2 — Chesterfield/L&M Blend Consolidation (VLG)
- 2 — International Panel Support
- 2 — Parliament Filter Optimization (CRL)
- 3 — Project Grain (DLS)
- 3 — Net Inclusion (DLS)
- 3 — Carbon Loading Reduction (CRL)

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Export Product Development Marketplace Driven Programs

- **Support The Growth Of International Business Through The Launch Of New Commercial Products For U.S. Export To International Markets In Asia, EEMA, EEC And LA/I, And Through Support Of J.T. Licensee Production.**

2021386180

Export Product Development Marketplace Driven Programs

JAPAN

- Lark Lights - D. Sealey
- Merit Ultra Lights - B. Tierney
- JT Marlboro DIET Inclusion/
Tar Reduction - J. Hickle
- JT Marlboro Lights Menthol - J. Hickle
- Lark Ultra Lights - R. Lambert
- Smoother Blend Development - R. Lambert
- Caster Type Ultra Lights
Development - J. Hickle
- New Technology Applications *Issues to
be running*
 - Low Smoke/Low Odor - J. Hickle
 - Reduced Nicotine - R. Lambert
- Lark
 - Graphics Upgrade - R. Lambert
 - Tipping Paper Upgrade - R. Lambert
- Virginia Slims
 - Graphics Upgrade - J. Hickle
 - FF Menthol 100 FTB - J. Hickle
 - Lights 100's 10's - J. Hickle
 - Non Menthol Product Concepts - J. Hickle

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Export Product Development Marketplace Driven Programs

JAPAN (continued)

- Philip Morris
 - Tipping Paper Upgrade - R. Lambert
 - 100mm Tar Reduction - J. Easley
- Parliament
 - Rounded Corner Box - J. Easley
 - Ultra Lights - V. Graff

KOREA

- Merit Lights Optimization - D. Sealey
- "Softer" Marlboro - D. Sealey
- Menthol KS - J. Hickie
- Marlboro Lights 100 SP - D. Sealey
- Superslims 100 FTB (Saturn) - D. Sealey
- 1mg KS/2mg 100 (Nova) - D. Sealey

HONG KONG/MACAU

- Marlboro Medium KS SP/FTB - J. Easley
- Merit Lights KS FTB - J. Easley
- Pan Asia Menthol - J. Hickie

2021386182

Export Product Development Marketplace Driven Programs

SINGAPORE

- Marlboro 100 FTB - D. Sealey
- Marlboro Medium KS FTB - D. Sealey
- Marlboro Medium KS FTB 10's - D. Sealey

TAIWAN

- Marlboro 100 FTB - J. Easley
- Virginia Slims Menthol 100 FTB - J. Easley
- Marlboro Tar Reduction - J. Easley
- Virginia Cigarette (Hilda) *ex Australia* - J. Easley

THAILAND

- Virginia Slims Menthol 100 FTB - V. Graff
- Parliament 100 FTB - V. Graff

PRC

- Marlboro Lights KS FTB - D. Sealey

2021386183

Export Product Development Marketplace Driven Programs

GCC

- Congress/Congress Lights - B. Tierney
Visa/Visa Lights
- PM KS Menthol - B. Tierney

EEMA

- Cyprus (Production Transferred from
PM Europe) - B. Tierney
Marlboro KS FTB
Marlboro Lights KS FTB

Russia/CIS Product Launches - V. Graff

EEC Product Launches - V. Graff

LA/I

- Chesterfield Lights
(Mansur Enhancement) - J. Easley
- B&H 100 FTB - J. Easley
- B&H Menthol 100 FTB - J. Easley
- Marlboro Lights 100 FTB - J. Easley

Malaysia Consumer Panel Support - V. Graff

2021386184

Export Product Development Marketplace Driven Programs

Merit Ultra Lights - Japan

Issue of What Does
Superior Mean

Objective

To Develop A 4.0MG TIOJ Tar Product Which Achieves
Parity In Liking With Mild Seven Super Lights Among Mild
Seven Lights Smokers.

Milestones

- | | |
|--|------------------------|
| • Danchi Consumer Test Results | April, 1993 |
| • Decision on FIL Filter Specification | April, 1993 |
| • Production Start-Up | June, 1993 |
| • Launch | September, 1993 |

Cross Functional Team

B. Tierney	-	Product Development
D. Laslie	-	Filter Technology
G. Kuhn	-	Quality Engineering
J. Shelton/K. Parrish	-	Flavor technology
K. Thompson	-	Operations Services
J. Price	-	Cabarrus Q.A.
J. Griffin	-	Purchasing
W. Claflin	-	Technical Advisor
C. Matthews	-	Product Evaluation

2021386185

Export Product Development Marketplace Driven Programs

JT Marlboro DIET Inclusion

Objective

To Incorporate DIET In The Japan Marlboro Blend To Facilitate Tar Reductions Without Compromising Subjective Integrity.

*Definition
of Tar Reductions
for Marlboro Family*

Milestones

- | | |
|---|---------------|
| • Blend Reformulation | January, 1993 |
| • Danchi Prototype Production | January, 1993 |
| • Additional Danchi Prototype Production | March, 1993 |
| • Receipt of Danchi Consumer Test Results | May, 1993 |
| • Implementation of DIET Inclusion | June, 1993 |

*Logistics of
Expanded Tobacco*

Cross Functional Team

J. Hickie	-	Product Development
C. Brumberg	-	Leaf
S. Nelson	-	PMKK Operations
K. Parrish/J. Shelton	-	Flavor Technology
C. Matthews	-	Product Evaluation

2021386186

Export Product Development Marketplace Driven Programs

JT Marlboro Lights Menthol

What do we want to Accomplish in the
Market Place

Objective

To Develop A 9.0MG TIOJ Tar White-Tipped Menthol
Product To Compete In The Expanding Japanese
Menthol Segment.

• Operations Issue
• Security Issues between
PM & T

Milestones

- | | |
|---|-----------------|
| • Blend Development | March, 1993 |
| • Factory Selection | March, 1993 |
| • Receipt of Danchi Consumer Test Results | July, 1993 |
| • Factory Modifications/Qualification | August, 1993 |
| • Production Start-Up | September, 1993 |
| • Launch | November, 1993 |

Cross Functional Team

J. Hickie	-	Product Development
C. Brumberg	-	Leaf
S. Nelson	-	PMKK Operations
K. Parrish/J. Shelton	-	Flavor Technology
C. Matthews	-	Product Evaluation

2021386187

Export Product Development Marketplace Driven Programs

Merit Lights Optimization - Korea

Objective

To Redesign The Current Merit Lights Product in Korea (through modification of tar level/blend/filter system) To Achieve Parity In Liking With 88 Lights Among 88 Lights Smokers.

Milestones

- | | |
|---|----------------|
| • Evaluation of Potential Blends/Flavors/
Filters/Tar Levels | January, 1993 |
| • Decision on 5.0mg Tar Level | February, 1993 |
| • Evaluation of Distinctive Flavors and
Filter Systems | February, 1993 |
| • Receipt of SCP Consumer Test Results | April, 1993 |
| • Optimized Product in Market | July, 1993 |

Cross Functional Team

D. Sealey	-	Product Development
A. Henriksen	-	PM Asia Operations
B. Scott	-	Leaf
K. Parrish	-	Flavor Technology
D. Laslie	-	Filter Technology
C. Matthews	-	Production Evaluation
J. Griffin	-	Purchasing

2021386188

Export Product Development Marketplace Driven Programs

Pan-Asia Menthol

Objective

To Develop A Family Of Menthol Products To Compete With Salem/Salem Lights Across The Asia Region (Hong Kong, Singapore, Thailand, and Korea).

Milestones

- | | |
|---|-----------------------|
| • Prototype Screening | February, 1993 |
| • Receipt of HKCP Consumer Test Results | May, 1993 |
| • Launch in Hong Kong | 4th Qtr., 1993 |

Cross Functional Team

J. Hickie	-	Product Development
K. Parrish/J. Shelton	-	Flavor Technology
B. Scott	-	Leaf
A. Henriksen	-	PM Asia Operations
C. Matthews	-	Product Evaluation

2021386189

Export Product Development Operations Driven Programs

- **Support P.M. USA Operations With Respect To International Export Products In The Area Of Quality, Cost/Productivity Improvement, Flexibility, Efficiency And Environmental Compliance.**

2021386130

Export Product Development Operations Driven Programs

- Pin Perforation Technology - V. Graff
- Porous Combining Wrap - R. Lambert
- Carbon Consolidation - R. Lambert
- Dual Hopper Max - R. Lambert
- Parliament Filter Optimization - R. Lambert
- Carbon Loading Reduction - R. Lambert
- JT Marlboro Factory Location
Change - J. Hickie
- L&M/Chesterfield Consolidation - V. Graff
- NET Inclusion - D. Sealey
- Grain Implementation - D. Sealey

2021386191

Export Product Development Operations Driven Programs

Carbon Consolidation

Objective

To Consolidate All Carbons To One P.M. Specification
For Coal Based Carbon And One P.M. Specification For
Coconut Based Carbon.

Milestones

- Decision on carbon moisture (3% vs. 18%) Feb., 1993
- Completion of Calgon 20x70 Qualification April, 1993
- Depletion of Calgon MF2C/Consolidation
to one coconut based carbon June, 1993

Cross Functional Team

R. Lambert	-	Product Development
A. Finley	-	Filter Technology
B. Johnson	-	Purchasing
C. Jackson/E. Weston	-	Operations Services
F. Allen/S. Wagner	-	Manufacturing

2021386192

Export Product Development Operations Driven Programs

Dual Hopper Max

Objective

To Qualify A Technology Which Replaces The Mulfi Filter Combiner For Dual Carbon/Acetate Filtered Cigarettes. Assembling Of The Components For Dual Filters Is Done At The Tipper, Thus Eliminating The Separate Step Of Combining In Dual Filter Processing.

Milestones

- | | |
|--|----------------|
| • PMKK Approval | February, 1993 |
| • Machine Removal From Cabarrus | April, 1993 |
| • Completion of Redesign to 9/18 Filter Configuration/Ventilation Reposition to 15mm | May, 1993 |
| • Production With Dual Hopper Max | June, 1993 |

Cross Functional Team

M. Garthaffner	-	Engineering
R. Lambert	-	R&D
J. Price	-	Cabarrus Q.A.
I. Sherman	-	Cabarrus Res. Eng.
K. Thompson	-	Operations Services

2021386193

Export Product Development Operations Driven Programs

L&M/Chesterfield

Objective

To Consolidate Cut Fillers on L&M And Chesterfield General Export To An Existing Cut Filler Specification.

Milestones

- | | |
|---|----------------|
| • Review of Worldwide Chesterfield Specifications | February, 1993 |
| • Decision on Consolidated Cut Filler Specification | March, 1993 |
| • Consolidation Implementation | May, 1993 |

Cross Functional Team

V. Graff	-	Product Development
K. Parrish	-	Flavor Technology
R. Keatts	-	Leaf
S. Haywood	-	Technical Services
	-	Manufacturing

2021386194

Affiliates & Licensees

2021386195

Affiliates and Licensee Product Development



- Country**

**Accomplishment
Expected Results
When
Who**

Priority Listing

**Regional personnel, IOS, CTSD,
and Mfg. Svs.**

PED, FT, TP&F, Leaf

2021386196



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**AFFILIATE AND LICENSEE
MARKETPLACE DRIVEN PRODUCT DEVELOPMENT**

WHO: RPH/AHC

WHAT:

#1's Malaysia

Marlboro Menthol - Horne

Chesterfield - Horne

Philippines

Slims Menthol - Drumwright

Venezuela

L&M Lights - Haskins

Panama

L&M Menthol - Tinker

#2's Dominican Republic

Chesterfield - Tinker

L&M Lights - Tinker

Marlboro Lights Menthol - Tinker

Costa Rica

Ken and L&M Lights - Tinker

Brazil

Merit - Haskins/Tinker

Mexico

B&H Lights 100's FTB - Tinker/Jackson

B&H 100's Regular and Menthol FTB - Tinker/Jackson

2021386197

Marketplace Driven



1. Malaysia

- Develop Marlboro Menthol in the taste direction of Salem
 - FTD Panel/Leaf Panel/Richmond Panel approval
 - February 22 launch
- Horne/Scott/Jackson

2. Malaysia

- Develop Chesterfield appealing to Dunhill and B&H smokers
 - MCP test *< long for Evaluation >*
 - June 1 launch
- Horne/Scott/Jackson/Jones/TP&F

→ fell between Flue Cured & Blended Region from MCP testing

3. Philippines

- Develop Va. Slims Menthol
 - Concept test completed, FTD Panel/Leaf Panel/Richmond Panel approval
 - 2nd Qtr. '93 launch
- Drumwright/Jackson/TP&F

4. Venezuela

- Relaunch L&M Lts. with a reduction of 2mg tar
 - FTD Panel/Leaf Panel/Richmond Panel approval
 - 2nd Qtr. '93 launch
- Haskins/C. Hatcher

→ current at 14mg

Product Sensitivity



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Marketplace Driven (continued)



5. Panama

- Develop L&M Menthol in Panama for export to Puerto Rico
 - Overall parity on PMI tests in Puerto Rico vs. Newport and Salem
 - 3rd Qtr. '93 launch
- Tinker/C. Hatcher/Jackson

6. Dominican Republic

- Develop Chesterfield defensively
 - FTD Panel/Leaf Panel/Richmond Panel approval
 - 3rd Qtr. '93 launch
- Tinker/C. Hatcher/Jackson

7. Dominican Republic

- Develop L&M Lts. defensively
 - FTD Panel/Leaf Panel/Richmond Panel approval
 - 3rd Qtr. '93 launch
- Tinker/C. Hatcher/Jackson

8. Dominican Republic

- Develop Marlboro Lts. Menthol defensively
 - FTD Panel/Leaf Panel/Richmond Panel approval
 - 2nd Qtr. '93 launch
- Tinker/C. Hatcher/Jackson

Propose for
Add
Activity



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Marketplace Driven (continued)



9. Costa Rica

- Develop L&M Lts. to compete with Belmont Extra Suave
- FTD Panel/Leaf Panel/Richmond Panel approval
- 3rd Qtr. '93

Tinker/C. Hatcher/Jackson

10. Mexico

- Develop B&H 100's Lts. FTB to expand 100's segment
- FTD Panel/Leaf Panel/Richmond Panel approval
- 2nd Qtr. '93

Tinker/C. Hatcher/Jackson

11. Mexico

- Develop B&H 100's Regular and Menthol FTB to expand 100's segment
- FTD Panel/Leaf Panel/Richmond Panel approval
- 2nd Qtr. '93

Tinker/C. Hatcher/Jackson

12. Brazil

- Develop Merit to compete in the growing LTN segment
- Richmond Panel approval, probable consumer testing
- June, 1994 launch

Haskins/C. Hatcher/Jackson/Jones



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2021386200

**AFFILIATE AND LICENSEE
OPERATIONS DRIVEN PRODUCT DEVELOPMENT**

WHO: RPH/AHC

WHAT:

#1's Mexico
USA Sourced Casings/Flavors - Jackson/Tinker
Philippines
Marlboro Improvement - Drumwright
Venezuela
Marlboro Improvement - Horne/Jackson
Malaysia
Consumer Panel - J. Jones

#2's Indonesia
Marlboro BBS - Horne/Drumwright
Brazil
Consumer Panel - J. Jones
Costa Rica
Marlboro Improvement - Haskins
Argentina
Casing/Flavor Standardization - Horne
~~Venezuela~~
Diacel Tow Qualification - Horne

RhI

→ Specifications

2021386201

Operations Driven



1. Malaysia

- Assist in establishing consumer panel
 - Testing of Chesterfield prototype(s)
 - April 1 fielding of Test #3
- Jones/Horne/Graff

2. Indonesia

- Produce Marlboro from BBS + local inclusion
 - Product subjectively equal to current and residue-free
 - Residue issue ASAP, launch 3rd Qtr. '93
- Scott/Horne/FTD Panel/Leaf Panel

3. Philippines

- Move local Marlboro subjectively closer to USA standard
 - FTD Panel/Leaf Panel/Richmond Panel approval
 - April 1 launch
- Drumwright/Jackson/Scott



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Operations Driven (continued)



4. Mexico

- Move local Marlboro subjectively closer to USA standard by incorporation of USA sourced casing/flavor system
- Richmond Panel approval, parity on PMI test
- 2nd Qtr. '93 launch

Tinker/C. Hatcher/Jackson/Cravotta

issue 06

5. Venezuela

- Move local Marlboro subjectively closer to USA standard by removal of carbon from filter and incorporation of Oriental tobacco in blend.
- Richmond Panel approval, parity on single pack test
- 2nd Qtr. '93 launch

Tinker/C. Hatcher

6. Specifications

- Compile cigarette, processing, and NTM specifications for corporate brands produced by affiliates and licensees
- Standard USA 3-page cigarette spec
- 4th Qtr. '93

Drumwright



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Operations Driven (continued)



7. Brazil

- Establish reliable consumer panel
- Completion of 6-test pilot study
- 4th Qtr. '93 tentative

Jones/TP&F

8. Philippines

- Qualify Diacel tow for use on corporate brands
- Richmond Panel approval of control versus test Marlboro
- 2nd Qtr. '93

Horne/Jackson/TP&F/FTD Panel/Leaf Panel/Richmond Panel

9. Costa Rica

- Move local Marlboro subjectively closer to USA standard by incorporation of Oriental tobacco.
- Richmond Panel approval
- 2nd Qtr. '93

Haskins/C. Hatcher

10. Argentina

- Standardize corporate brands to USA casing/flavor system
- Richmond Panel approval
- 2nd Qtr. '93

Tinker/Jackson/FTD Panel/Leaf Panel



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2021386205



DOMESTIC OPERATIONS DRIVEN PRODUCT DEVELOPMENT

WHO: RHC/VEW-GNY-WRB-CSK

WHAT:

MARLBORO - VEW-MAJ

#1's LBO-12 Blend Reduced Humectants
(In RL-BL)/Grain
LBO-12 Increased Offshore Inclusion
Marlboro 14% BLDET
Marlboro Control Region Monitors

#2's Licorice Replacement
Alternate Humectants (RL-BL)
Marlboro RI
Project Grain

OPB - GNY-MAJ

#1's NET Inclusion
Multifilter Cut Filler Consolidation

#2's Wood Pulp Paper Utilization
Menthol Application(s) (Foil & Kaymich)
Flavor Revisions

DISCOUNT - WRB-MAJ

#1 Brica Blend (IV) & Weight Reduction Program
(NPP, Steam Tunnel)

#2 Diced Cut Strip

2021386206

Marlboro/Proc. Plant

2021386207

MARLBORO

Objective: To monitor the quality of Marlboro subjectively and analytically to ensure subjective parity and quality.

A. To implement BLT in RCB.

Support implementation of BLT	February, 1993
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B. Increase the expanded tobacco in Marlboro from 13 to 14%

Blend development and prototypes design	April, 1993
Prototype and internal evaluation	May, 1993
POL - Marlboro with 14% BLDET	June 7
POL - Marlboro with 14% BLDET	July 26
POL - Marlboro with 14% BLDET	August 2
POL - Marlboro with 14% BLDET	August 16
Cigarette Specifications 14% BLDET	September, 1993
Factory trial	October, 1993
Support implementation	November, 1993

factory production

C. Increase the expanded tobacco in Marlboro from 14 to 15% - 1994

D. Conduct test with offshore tobacco to determine inclusion rates for Marlboro and other premium brands without adversely affecting subjectives.

1. Increase offshore bright (BLDET)

Internal evaluation of factory trial	February, 1993
Specifications for BF45	February, 1993
Support implementation	March, 1993

*Define 2 Internal
No testing*

2. Increase offshore to DBC Burley (one hogshead)

Blend development	March, 1993
Conduct trials	April, 1993
Internal evaluation of BOS addition	May, 1993
Specification for BOS	June, 1993
Support implementation	July, 1993

New OUB? Feb 26th

2021386208

3. Increase offshore to DBC Burley (one hogshead - total of two for 1993)

Blend development	June, 1993
Conduct trials	August, 1993
Internal evaluation and specification	August, 1993
Support implementation	September, 1993

E. Investigate the new discounted pooled tobacco purchases in Marlboro.

Blend development	June, 1993
Internal evaluation	September, 1993
Recommendations	October, 1993
Specifications	December, 1993
Support implementation	January, 1994

PRIORITY - #1

Group resources allocations summary: S. Ruziak, B. Woodson, K. Deane, D. Atkinson, A. Smith, M. White, T. Gannon, and B. Hale / M H J

External R&D resources summary: Todd Hoskin, E. Chambers, B. Handy

External resources summary: R. Keatts, R. Rainey, D. Sweeney, and factories

2021386209

PROJECT GRAIN

Objective: Incremental alcohol reduction in aftercut(AC).

A. Conduct factory trials with reduced alcohol levels in AC in conjunction with alcohol-free Burley top casing (BTC)

Support implementation of Phase I Grain	February, 1993
Establish limits for Grain in existing menthol products	March, 1993

PRIORITY - #1

B. Reduce/rearrange PG in flavor system in combination with alcohol-free BTC and AC alcohol reductions

POL Testing (67% alcohol reduction)	June, 1993
Replicate POL (67% alcohol reduction)	July, 1993
Establish uniformity of aftercut application with decreased volumes	June, 1993
Factory trial (if needed)	September, 1993
POL testing (97% alcohol/25% PG)	August, 1993
Replicate POL	November, 1993
Recommendations	February, 1994

C. Remove all alcohol from AC's in Australian brands to confirm with government flash point requirements.

Continue development work pending consumer testing results from the region if needed and support implementation

PRIORITY - #2

Group resources allocations summary: S. Ruziak, B. Woodson, K. Deane, H. Maxwell, B. Demian, D. Atkinson, A. Smith, M. White

External R&D resources summary: Todd Hoskin, E. Chambers, and B. Handy

External resources summary: R. Keatts, R. Rainey and D. Sweeney

2021386210

ALTERNATE HUMECTANTS

Objective: Produce flavor systems and reconstituted tobacco materials with alternate humectants for cost reduction and defensive purposes.

Develop and evaluate alternate humectants replacing PG and glycerin in PM brands.

Casing and flavor modifications, if needed	March, 1993
Processing plant trials for RCBT's	April, 1993
Storage Studies	December, 1993
POL testing	July, 1993
Factory trial	TBD
Testing for international specifications	
Germany	TBD
Japan	TBD
Recommendations and specifications	
Support implementation	As needed

PRIORITY - #2

Group resources allocations summary: S. Ruziak, B. Woodson, B. Hale, A. Smith, M. White, T. Gannon

External R&D resources summary: T. Hoskin, E. Chambers, B. Handy

External resources summary: R. Keatts, R. Rainey, D. Sweeney

2021386211

MARLBORO RI

Objective: Develop a Marlboro flavor system containing fewer than 40 listed components which support the subjective character in Marlboro cigarettes.

Develop new reduced-ingredient flavor systems and subjectively evaluate blend modification.

POL testing	March, 1993
Evaluate the feasibility of the incorporation of NET expanded materials in RI	June, 1993
Production of new blend components and blend	August, 1993
POL testing	October, 1993
Recommendations	December, 1993
Factory trials	As needed

PRIORITY - #2

Group resources allocations summary: **K. Deane**, D. Atkinson, S. Ruziak, A. Smith,

External R&D resources summary: T. Hoskin, E. Chambers, B. Handy

External resources summary: R. Keatts, B. Rainey, Park 500, BL Plant and ES/IS Facilities

2021386212

LICORICE REPLACEMENT

Objectives: Develop burley spray specifications for factory primaries and investigate the reduction/elimination of licorice in the casing formulation.

Develop licorice substitutes for current products

Evaluate with and without licorice - current system

POL testing

April 26

POL testing

July 19

POL testing

July 26

Evaluate feasibility of program.

PRIORITY - #2

Group resources allocations summary: B. Woodson, K. Parrish, B. Demian

External R&D resources summary: Todd Hoskin, E. Chambers, B. Handy

External resources summary: Purchasing

• Demo Product Development
• PFD

2021386213

PROCESSING PLANT SUPPORT

2021386214

PROCESSING PLANT SUPPORT - RCB

Objective: To increase productivity while maintaining subjective parity.

Evaluate line speed increased to 390 fpm for one line with others at 350 fpm.

Subjective guidance for dryer conditions	May, 1993
Conduct factory speed up trials line by line to qualify conditions for each line at 390 fpm	June, 1993
Recommend profiles, modifications etc.	July, 1993
Support implementation	As needed

Evaluate feedstock utilization.

Conduct pilot RCBT trials	February, 1993
BL Plant trials of selected feedstock	May, 1993
Subjective recommendations	June, 1993

Support evaluation of modernization issues.

Guidance for factory concerns/modification issues	As needed
Recommendations based on subjective evaluations	As needed

Group resources allocations summary: **B. Hoskin**, J. Swain, L. Vinson

External R&D resources summary: Todd Hoskin, E. Chambers, B. Handy, Reconstituted Tobacco Development

External resources summary: BL Plant (R. Smith), L. Jennings, Operation Services (W. Thomas)

2021386215

PROCESSING PLANT SUPPORT - RL'S

Objective: Provide Flavor Technology support to Park 500 for flavor systems and process modifications to address economic, environmental and overall quality issues.

Support by-product utilization

Evaluate feedstock modifications/substitutions
at the request of Leaf Blending Ongoing

Evaluate process modifications

Evaluate RLBW on internal panels February, 1993
Recommendations March, 1993

Flavor system support

Support Park 500 QA on out of specification
flavors and RL's Ongoing
Evaluate and recommend subjectively acceptable
Yankee dryer release agents June, 1993

Group resources allocations summary: **J. Pflueger**, J. Swain, L. Vinson, A. Warfield

External R&D resources summary: Todd Hoskin, E. Chambers, B. Handy, Reconstituted Tobacco Development Group,

External resources summary: Park 500, L. Jennings, W. Thomas, E. Tucker

2021386216

COOKED FLAVOR CAPACITY

Objective: To qualify alternate sources for sugar and amino acid. To support cooked flavor production automation of reactor system at the Flavor Center.

Support the implementation of alternate vendors

Support Implementation	Ongoing
Support final specification of ingredients	Ongoing
Continued Flavor Technology Support	As needed

Support automation of reactor system.

Design specification/implementation support	March, 1993
Automated system qualification	June, 1993
Continued Flavor Technology Support	As needed

Group resources allocations summary: **B. Hoskin**, J. Swain, L. Vinson, Recon Panel, B. Hale.

External R&D resources summary: Todd Hoskin, E. Chambers, Pilot Plant (C), Reconstituted Tobacco Development.

External resources summary: Park 500, R. Smith, L. Jennings, W. Thomas, and Purchasing

2021386217

FLAVOR CENTER - COOKED FLAVOR

Objective: To subjectively evaluate materials from the Flavor Center which show borderline analytical results.

Analytically and/or subjectively evaluate suspect materials submitted through Operations Services from the Flavor Center

Test for analytical verification
Subjectively evaluate revised formulations
Removal of ingredients (modifications)
Supply Technical Services with new formulations
Subjectively and analytical test reduced ingredient formulations

Group resources allocations summary: J. Pflueger, J. Swain, L. Vinson, B. Hale, Panels:

External R&D resources summary: T. Hoskin, CTSD, ARD

External resources summary: R. Smith, W. Thomas, E. Tucker, Park 500, Purchasing.

2021386218

UNCOOKED FLAVOR SYSTEMS
(75-814 REPLACEMENT)

Objective: To replace cooked flavor for RLTC due to possible regulatory changes.

Develop, evaluate and test alternate flavor in RLTC.

Subjective evaluation of modified flavors in RL
Pilot trial samples

May, 1993

Modifications, if necessary, prior to large scale
Park 500 trials

December, 1993

POL test

February, 1994

Group resources allocations summary: **J. Pflueger**, B. Peace, J. Swain, Panels, B. Hale.

External R&D resources summary: T. Hoskin, E. Chambers, J. Lightner, B. Handy, R. Uhl

External resources summary: Park 500 (L. Thomas), W. Thomas, C. Moogalian

2021386219

BURLEY STEM UTILIZATION

Objective: Conduct a subjective and feasibility study of the usage of burley stems through ES and IS operations in discount products.

Define burley stem usage as ES/IS in generic products.

Test ES/IS blends in SW	February, 1993
Financial analysis and operation feasibility	March, 1993
Subjective evaluation and recommendations	March, 1993
Casing development	April, 1993
Conduct large scale expansion test in LVL	April, 1993
Conduct large scale cigarette trials in SW	May, 1993
Subjective evaluation and recommendations	June, 1993
Issue specifications	June, 1993
Support - implementation (Louisville)	September, 1993
Support - implementation at processing plants and factories	December, 1993

Group resources allocations summary: **B. Hoskin**, J. Swain, Panels, L. Vinson

External R&D resources summary: Todd Hoskin, E. Chambers, J. Lightner, B. Handy, S. Clark

External R&D resources summary: L. Jennings, Operation Services, ES/IS Plant, Processing Plant, Factories

2021386220

EXPANDED TOBACCO SUPPORT

Objective: To support blend and processing modifications through analytical and subjective evaluations.

Conduct and evaluate processing trials to address capacity and factory-to-factory subjectives consistency.

Continue factory-to-factory comparisons	Ongoing
Support Cabarrus throughput trials	March, 1993
Recommend conditions to produce subjective parity	April, 1993

Group resources allocations summary: J. Pflueger, **J. Swain**, Buddy Peace, Panels

External R&D resources summary: Todd Hoskin, E. Chambers, J. Lightner, B. Handy, W. Winterson

External R&D resources summary: L. Jennings
Operation Services
ES/IS Plant
Processing Plant
Factories

2021386221

SUBJECTIVE PANEL SUPPORT

2021386222

MARLBORO STANDARDIZATION

Objective: To identify and reduce sources of variation in PM brands between production and processing facilities.

A. Conduct factory pickups and standard runs to monitor the quality of Marlboro by subjective and analytical testing.

Factory trial - Blend changes	February, 1993
Factory pickup (MF Lights SP and FTB)	April, 1993
Factory pickup (MF and MF Medium)	June, 1993
Marlboro Standardization Run XI	August, 1993
Factory pickup (MF Lights SP and FTB)	October 1993
Factory trial on 11/93 blend changes	October 1993
Factory pickup (MF and MF)	December, 1993

PRIORITY - #1

Group resources allocations summary: **K. Deane, K. Lam**

External R&D resources summary: **J. Lightner, B. Handy, T. Hoskin**

External resources summary: **J. Hutchison, R. Keatts, R. Rainey, R. Hatcher, Factories (samples) - Cab. - Jerry Crowe, MC. - Katherine Smith, LVL - Denny Price and SS - Rowe Freelin**

Objective: To provide training, maintenance and support to factory panels which could possibly identify and reduce sources of taste/odor/stale customer complaints.

Cab/LVL/SS/MC:

Screening of panelists on taste and odor, use of scales and initiate attribute training	April, 1993
Review of blends and blend components	June, 1993
Review of menthol training(levels and blend)	September, 1993
Review of export blends	September, 1993
Characterization of export brands	October, 1993
Daily monitoring of products	Continuous

2021386223

ISSUES:

Timing will vary depending on factory schedules

All locations - panel leader and room for smoking, changing personnel

Group resources allocations summary: **K. Deane, B. Hale**

External R&D resources summary: **E. Chambers/J. Lightner, B. Handy, T. Hoskin**

External resources summary: **R. Keatts, Tracy Alexander, Karen Edwards, Barbara Wayne, and Bobby Coleman**

Objective: To subjectively test and monitor Marlboro product from different locations externally (POL testing).

POL testing of Factory production and Marlboro Standardization production to aid in defining Marlboro control regions and developing new statistical methods.

3102 - MF KS SP - SW - 11/92 Blend	February, 1993
3094 - MF FTB - M/C 11/92	February, 1993
3097 - MF KS SP - Cab 11/92 Blend	February, 1993
3109 - MF FTB SS 11/92 blend	February, 1993
3096 - MF KS SP - MC 11/92 Blend	February, 1993
3108 - MF FTB -LVL 11/92 Blend	February, 1993
3095 - MF KS SP -LVL 11/92 Blend	March, 1993
3110 - MF KS SP SW - 11/92 Blend	March, 1993
3111 - MF KS SP M/C 11/92 Blend	March, 1993
3112 - MF KS SP Cab 11/92 Blend	April, 1993
3113 - MF KS SP LVL - 11/92 Blend	April, 1993
3114 - MF KS SP SS - 11/92 blend	April, 1993
3088 - MF KS SP SS - 3/93 Blend	May, 1993
3090 - MF KS SP Cab - 3/93 Blend	May, 1993
3089 - MF KS SP MC - 3/93 Blend	May, 1993
3101 - MF KS SP LVL - 3/93 Blend	May, 1993
3115 - MF KS SP SW - 3/93 Blend	May, 1993
Marlboro FTB SW - 3/93 blend	June, 1993
Marlboro FTB Cab	August, 1993

2021386224

PRIORITY - #1

Group resources allocations summary: A. Smith, K. Deane, S. Ruziak, B. Hale, B. Woodson, D. Atkinson, M. White, T. Gannon

External R&D resources summary: E. Chambers/J. Lightner, B. Handy, T. Hoskin

External resources summary: R. Keatts, J. Hutcheson, D. Sweeney

2021386225

DOMESTIC PANEL SUPPORT

Objective: To provide subjective evaluations of prototypes, modifications of existing brands, new brands and monitoring of competitors' products.

Conduct subjective evaluations on developmental prototypes, monitor domestic and competitive brands and any problems associated with production and/or processing plants.

Complete Glycerin/Triacetin Studies	February, 1993
Complete report for high barrier film	February, 1993
Complete multiple film layer storage study	March, 1993
Complete Metallized film study (Merit)	June, 1993
Complete report for Metallized film	July, 1993
Factory support evaluations (New or modified equipment and/or procedures)	As needed
Project Grain evaluations	As needed
Factory issues	As needed
Subjective evaluation of POL samples	As needed
Subjective characterization of new and modified brands	As needed
Subjective evaluation of materials from Operations and Technical Services Groups	As needed
Subjective monitoring of new brand startups	As needed
Subjective profiling of competitors' brands	As needed

Objective: To provide training, maintenance and support to auxiliary panels (e.g., Richmond, Semi-Works, Filter and Paper and Cast Leaf).

Train auxiliary panels to screen developmental prototypes and to judge final acceptability of products via attributes. To maintain and support the auxiliary panels.

Flavor Technology Panel:

Review of blends and components	April, 1993
Conduct studies on test methodology	May, 1993
Develop extended terminology and definitions	July, 1993
Review of blends and components	August, 1993
Review of blends and components	October, 1993

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Semi-Works Panel:

Complete training (filter and papers)	June, 1993
Review of blends and components	September, 1993

Richmond Panel:

Initiate basic taste, aromatic and attribute training	June, 1993
Continue training on blends and components	September, 1993
Complete training	December, 1993

Filter and Paper Panel:

Characterize filter and paper prototypes	June, 1993
Review of blend and blend components	September, 1993

Cast Leaf Panel:

Review of blend and blend components	September, 1993
Continuous training	As needed

New Panels:

Set up training schedule as requested	As needed
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Group resources allocations summary: **K. Deane**, M. White, K. Newman, B. Goodman, J. Gear, D. Atkinson

External R&D resources summary: T. Hoskin, E. Chambers, J. Lightner, M. Gilbert, C. Scott, G. Gellatly

2021386227

INTERNATIONAL PANEL SUPPORT

Objective: To provide subjective evaluation of developmental prototypes, modifications of existing brands and monitoring of export (PM and competitors') brands.

Monitor new and existing brands and provide subjective evaluation in prototype development.

Subjective characterization of export brands	Ongoing
Subjective profiling of competitors brands	As needed
Factory issues	As needed
Subjective evaluation of POL samples	As needed
Subjective characterization of new and modified brands	As needed
Subjective evaluation of materials from Operations and Technical Services Groups	As needed
Subjective monitoring of new brand startups	As needed

Objective: To provide training and maintenance for the International panel and auxiliary export panels.

Train auxiliary panels to screen developmental prototypes and to judge final acceptability of products via attributes. To maintain and support the auxiliary panels.

International Panel and Internal Danchi Panel:

Continue training of blend and blend components	Completed
Review of blend and blend components	September, 1993

Group resources allocations summary: **K. Deane**, J. Gear, K. Parrish, J. Smith and A. Confer

External R&D resources summary: Todd Hoskin, E. Chambers, J. Lightner, B. Handy

2021386228

SUPPORT PROGRAMS

2021386229

NBL

Subjective qualification of NBL.

Internal Subjectives from factory trial	March, 1993
Replicate factory trials	March, 1993
Reduced ammonia trial	March, 1993
Internal subjectives	May, 1993
Subjective based recommendations for process specifications	June, 1993

BL Plant modernization Support (Low Cost Retrofit)

Define baseline blending and establish acceptable options	April, 1993
Evaluate subjective effects of drying during grinding	March, 1993
Subjective support	As needed

Group resources allocations summary: **B. Hoskin, B. Peace, J. Swain, Cast Leaf Panels.**

2021386230

CAST LEAF

Reduced guar gum formulations

Define minimum guar content thru process optimization

Production dust vs. dust/stems, Improved homogenization

Dryer optimization

Subjective evaluation As needed

Define potential of "hybrid" sheet

Flavor development As needed

Subjective evaluation As needed

Determine feasibility of alternate pectin release

TMP - Steam treatment

Subjective evaluation As needed

Evaluate Cast Leaf Products

Define utilization strategy for CL June, 1993

Evaluate delivery/CV/subjectives December, 1993

Flavor development As needed

Subjective evaluation As needed

Define blend inclusion December, 1993

Design a low capital cost plant

Subjective support As needed

Group resources allocations summary: J. Swain, B. Peace, Cast Leaf Panels

2021386231

ASTA/SIVA

Objective: Develop and evaluate flavors and processes for ASTA (substitution for RCB) and SIVA (substitution for RLB) for PM brands (Marlboro and Chesterfield).

Development of sheet materials

Continue flavor development and subjective qualification
of sheet materials from Spain

On going

Group resources allocations summary: **J. Swain, J. Pflueger, B. Peace, Panels**

2021386232

Premium Brands

2021386233

Domestic Operations Driven Product Development
Other Premium Brands

NET Inclusion (#1)

Objective

Replace DIET with NET in all Premium Brands (Except Marlboro FF and Lts.) and Increase the Inclusion Rate by 3%.

Milestones

March 93

- Ship POL Tests
 - Merit with 15% NET Rep 2
 - B&H 100's with 15% NET Rep 2
 - Merit Ultra Lights with 25% NET
 - B&H 100's Menthol with 15% NET
- Preliminary Processing Specifications Complete

July 93

- Complete Danchi Testing of Parliament, Virginia Slims Menthol and Lark (possibly)

August 93

- Installation of Scrubbers at Bermuda Hundred

2021386234

September 93

- Qualify NET Processing and Expansion Lines
- Complete Factory Trials
- Produce Final POL Prototypes

November 93

- Implementation

Team Members

Skalak / Taylor	FTD
Peace	DPD
Moogalian	Leaf
Kuesten	PED
Fischer	Process Engineering
Newman / Annamanthadoo	Bermuda Hundred

— Export situation —

— Tom Meek —

2021386235

Domestic Operations Driven Product Development
Other Premium Brands

Multifilter Cut Filler Consolidation (#1)

Objective

Eliminate the Unique Aftercut on Multifilter; Evaluate Changing to the Merit Aftercut.

Milestones

1st Quarter 93

- Produce Prototypes for Internal Evaluations
- Determine Success Criteria

2nd Quarter 93

- POL Test if Warranted
- Implement Change

Team Members

Taylor	FTD
Gannon	DPD
Joyner	PED

2021386236

Domestic Operations Driven Product Development
Other Premium Brands

Wood-Pulp Paper Utilization (#2)

Objective

Incorporate Wood-Pulp Paper on Our Premium Brands With No Change In Subjective Character.

Milestones

1st Quarter 93

- Conduct Internal Evaluations of Marlboro with Wood / Flax Papers vs. Standard Flax Papers
- Order New Papers with Lower Wood-Pulp Content (25%)

2nd Quarter 93

- Produce and evaluate Prototypes Using Lower Wood-Pulp Content Papers
- Select best Candidates Based on Internal Subjective Evaluations

3rd Quarter 93

- POL Testing of Best Candidates

December 93

- Implementation

- Financial situation
is 25% Wood Pulp a Cost Benefit

2021386237

Team Members

Maxwell

White

Smith

Forsmark

Geiszler

FTD

DPD

PED

Purchasing

PTD

"Export"

2021386238

Domestic Operations Driven Product Development
Other Premium Brands

Menthol Application (#2)

Objective

Evaluate the Potential For Eliminating the Menthol-On-Foil Process. Evaluate Alternative Approaches for Applying Menthol.

Milestones

February 93

- Present Scenarios Describing the Impact to Product and Primary Operations if MOF is Replaced With Spray Application
- Issue Proposal to Purchase / Evaluate a Kaymich FDU-3 Flavor Applicator

2nd Quarter

- Develop Action Plan for Program Based on Management's Review of Above

Team Members

Maxwell
Monahan
Fleming
Thomas

FTD
DPD
PED
Tech. Svcs.

Louisville operations

2021386239

Domestic Operations Driven Product Development
Other Premium Brands

Kaymich Flavor Applicator (#2)

Objective

Evaluate the Kaymich FDU-3 Flavor Applicator as a Method for Applying Flavors Directly to the Filler Stream on the Maker. Evaluate as an Alternate Method of Mentholation.

Milestones

February 93

- Issue Proposal to Purchase / Evaluate a Kaymich FDU-3 Flavor Applicator

2nd Quarter 93

- Install Unit in Semi-Works
- Shake-down Trials
- Repeat Previous Menthol Testing
- Evaluate its Ability to Apply Flavors On-Maker

3rd Quarter

- Produce Distinctive Flavor Prototypes
- Produce Menthol Prototypes

4th Quarter

- Longer Term Testing On High Speed Equipment

2021386240

Team Members

Cravotta / Maxwell

Monahan

Fleming / Jones

Thomas

*

*

FTD

DPD

PED

Tech. Svcs.

Semi-Works

Engineering

2021386241

Domestic Operations Driven Product Development
Other Premium Brands

Flavor Revisions (#2)

Objective

Eliminate Unwanted Ingredients From PM Direct Materials to Comply With Worldwide Legal Requirements.

Milestones

1st - 4th Quarters 93

- Eliminate 21 Vendor Supplied Flavors, That Were Previously Duplicated Last Year, Based on Inventory Depletion

1st Quarter 93

- Duplicate the Subjective Effect of 12 Vendor Supplied Flavors

2nd - 4th Quarter 93

- Initiate and Complete the Elimination of 12 Vendor Supplied Flavors Based on Inventory Depletion

2021386242

Team Members

Cravotta / Pflueger /Skalak
Cook / Lambert
Daylor / Williams
Lewis / Capocelli

FTD
Tech. Svcs.
Regulatory
Purchasing

2021386243

Product Technology

All Lamina Blend

Objective

Develop a Full Flavor KS Product Using an All Lamina Blend (No Reconstituted or Stem Products) That is Subjectively Competitive to Other Full Margin Brands and Provides Added Value to a Premium priced Product.

→ define
• other features
such as - how's the strength
- project tomorrow

Milestones

March 93

- Ship POL 03116, Blend 378-E, to Determine Baseline

April 93

- Evaluate POL Results, Redefine Product and/or Direction if Necessary
 - where is it headed?
 - what are the expected results

July 93

- Additional POL Testing

December 93

- Program Completion

2021386244

Team Members

Maxwell	FTD
White / Gannon / Spruill	DPD
Smith	PED
Keatts	Leaf

2021386245

Product Technology

Distinctive Flavors Exploratory Program

Objective

Determine the Consumer Interest in the Concept of "Distinctively Flavored" Cigarettes. If Concept is Viable, Develop a Family of Flavors that Deliver a Characteristic Distinct Flavor Sensation.

Milestones

April 93

- Conduct Quantitative Product Testing
 - Gauge Consumer Appeal
 - Narrow / Determine Field of Potential Flavors

May 93

- Decision Point

3rd - 4th Quarter 93

- Conduct Quantitative Product Testing
 - Determine Correct Flavor / Aroma Delivery
- Conduct Extended Product Testing
- Determine Stability of Flavored Products
- Evaluate Flavor Delivery / Application Systems
 - Encapsulation
 - Spraying
 - Kaymich

2021386246

1st Quarter 94

- Development of 3 - 4 Distinctively Flavored Products
- Final Product Testing

Team Members

Cravotta / Taylor	FTD
Monahan / Spruill	DPD
Jones	PED
Lopez	Market Research
Goldfarb	Brand Group
Houminer	Micro-Encapsulation
Kaymich Team	

2021386247

Support To Other Programs

NET Process Development

Skalak / Taylor

Sensory Technology

Maxwell / Cravotta

2021386248

Discount Brands

2021386249

DISCOUNT PRODUCTS
(ALL RECON CIGARETTE)

Objective: To develop a product with only sheet materials and stems.

Select a blend to produce prototypes for flavor development containing combinations of current sheet materials and IS.

Prototypes evaluation of selected blend and flavor systems	May, 1993
Modification	As needed
Paper and filter evaluation	July, 1993
Selection of prototypes for internal testing	September, 1993
Selection of prototypes for external testing	November, 1993
External testing (POL)	January, 1994

Group resources allocations summary: **J. Pflueger**, J. Swain, Panels, B. Monahan, B. Hale, S. Baldwin and J. Hearn

External R&D resources summary: Todd Hoskin, E. Chambers, J. Lightner, B. Handy, L. Wilkinson

External resources summary: W. Thomas, C. Moogalian, Park 500, ES/IS Plant

2021386250

Factory Support/
Packaging Tech.

2021386251

FACTORY SUPPORT

I. MC Primary Qualifications

Objective: To provide support for the subjective qualification of MC Primary modernization programs.

A. Qualification of the new P&S dryer #1 - **March, 1993.**

Internal: D. Spruill and J. Sherron. **External:** R. Rainey, R. Bowman and S. Rudis.

B. Qualification of DIET stem reclamation from the VT separator, repeat testing with BLDET formula - **1Q93.**

Internal: D. Spruill and J. Sherron. **External:** C. Wood, P. Aument and S/W.

C. Qualification of new A/C cylinders.

1. New A/C cylinders (#5 & 6) qualified - **February, 1993.**
2. New A/C cylinders (#7 & 8) will be installed and qualified during **2Q1993.**
3. New cylinders (# 1 - 4) scheduled for installation during July shutdown. Qualification scheduled for - **July, 1993.**

Internal: D. Spruill and J. Sherron. **External:** S. Rudis, R. Bowman and ARD.

D. DCC qualification - **March, 1993.** Tentative operation - **April, 1993.**

Internal: D. Spruill and J. Sherron. **External:** S. Rudis and R. Bowman.

2021386252

FACTORY SUPPORT

II. Small Scale Semi-Works Qualification

Objective: To achieve parity between small and large scale operations so that sample size will be the only factor for determining whether primary samples are produced in small or large scale.

A. Qualification of overspray operation - 3Q93.

1. Establish baseline for processing up to Hauni dryer exit in large scale.
2. Evaluate small scale A/C application.
3. Review results and resolve issues.
4. Subjectively qualify overspray application.

B. Qualification of add-back/overspray operation - 4Q93.

1. Verify specifications for ET & ES add-back.
2. Determine add-back variation in small and large scale.
3. Resolve any issues and subjectively qualify operation.

C. Qualify drying operation - 1Q94.

D. Qualify cutting/drying operation - 2Q94.

E. Qualify blending/cutting/drying operation - 3Q94.

F. Qualify casing/blending/cutting/drying operation - 4Q94.

G. Qualify total operation (excluding burley process) - 1Q95.

H. Qualify burley process - 4Q95.

Internal: S. Skalak, W. Bell, C. Kroustalis, M. White, T. Gannon.

External: E. Craze, T. Skidmore, M. Tallman, V. Smith, K. Dudzinski and K. Heidsieck.

2021386253

FACTORY SUPPORT

III. Natural Glycerin Triacetin

Objective: To qualify the use of natural glycerin triacetin as filter plasticizer for supply security and reduced cost.

- A. Internal subjective evaluations - **Complete.**
- B. Decide whether external (POL) testing is needed - **March, 1993.**
- C. POL testing, if needed - **August, 1993.**
- D. Recommendation/Specifications - **4Q93.**

Internal: K. Lam, R. Hale, A. Finley and M. Jeltema.

External: B. Johnson, S/W and Technical Services.

IV. Tobacco Materials and Reclamation

Objective: To assist factories in reclamation and proper utilization of returned goods and out of spec materials.

Internal: FTD and CTD. **External:** S/W and Factories.

2021386254

PACKAGING TECHNOLOGY

I. Qualification of Offset Inks

Objective: To qualify an offset printing system for use on promotional items and low volume or price value brands.

Qualification of low odor UV ink system - 4Q93.

1. Press trial evaluations - February, 1993.
2. Analytical investigations - February, 1993.
3. MAT half-carton evaluation/approval - February, 1993.
4. Analytical method development - April, 1993.
5. Additional press trials - on-going to 3Q93.
6. Specifications - 4Q93.
7. Alternate printer qualification - 4Q93.

Internal: B. Mait, R. Dunaway, P. Thomas, C. Kroustalis.

External: E. Gruca, J. Stargardt, K. Podraza and ARD team.

II. Qualification of Waterborne Inks - 4Q93.

Objective: To qualify a waterborne ink system for use on printed packaging materials for fast flow inventory and vendor emissions compliance.

1. Vendor qualification - Complete
2. Qualification of Saratoga cartons - January, 1993.
3. Evaluation of other carton products - On-going to 3Q93.
4. Analytical methods development - 3Q93.
5. Specifications - 4Q93.

Internal: B. Mait, R. Dunaway, P. Thomas and C. Kroustalis.

External: E. Gruca, J. Stargardt and ARD team.

2021386255

PACKAGING TECHNOLOGY

Qualify Export Products

III. New Packaging Materials Support and Development - On-going

Objective: To qualify new packaging materials for use in new brands, line extensions, graphics changes and promotionals.

- Bring Qualification process into beginning of packaging process*
1. Qualify new packaging materials - **On-going**.
 2. Qualify paper bundle for foil/paper replacement - **TBD**.
 3. Qualify new supplier for paper in foil/paper bundle - **TBD**.
 4. Qualify aluminum pack - **When Available**.
 5. Heating effects on product during transportation - **2Q93**.
 6. Recycled paper evaluation - **On-going**.

Internal: B. Mait, P. Thomas, FTD panel, CTD, PED.

External: Quality Engineering, Purchasing and ARD.

IV. Alternate Film Testing

Objective: To determine the impact of overwrapping cigarette packs with alternate film materials.

1. Evaluation of multilayer film overwraps on subjectives and moisture retention - **1Q93**.
2. Evaluation of metallized films - **When Available**.
3. Recommendations - **4Q93**.
4. Merit storage study - **June, 1993**.

Internal: B. Mait, R. Dunaway, P. Thomas and FTD panel.

External: Quality Engineering, Purchasing and ARD.

→ some interest in the Packaging Area

V. Packaging Panel

Objective: To provide subjective evaluations/approval for Packaging Programs - **On-going**.

2021386256

ANALYTICAL SUPPORT

I. Directorate Analytical Support

Objective: To provide accurate and timely analytical support to all programs and projects within the Directorate.

II. External Analytical Support

Objective: To provide accurate and timely analytical support to Technical Services, the Flavor Center, Standards Lab and address Factory problems.

Internal: R. Hale, B. Demian, K. Lam, A. Palmer, A. Warfield and D. Wittkamp.

2021386257

*Map of Competitors Product
in the Discount Area*

PRIMARY TECHNOLOGY PROGRAM

Objective: To provide technological information for individual component processing (ICP) which will provide additional flexibility for primary processing.

- A. Use of Direct Cylinder Conditioning for casing and conditioning.
- B. Use of Hauni Steam Tunnel (HST) for CV enhancement in both total blend and lamina only.
- C. Variation in CPI of blend and/or individual components.
- D. Expanded BRICA component tobacco inclusion into BRICA Blends.
- E. Microwave and Panda (superheated steam) investigations for CV enhancement.
- F. Blend uniformity through ICP process.
- G. Flavor modifications as necessary.

TIMETABLE: Investigations and trials are on a continuing basis with implementation as the components are accepted and available for factory use.

Direct cylinder conditioners are currently being installed and will be replacing the Mohr units at the MC and CAB Plants. Qualifications will be conducted when installations are completed. Best estimate 2nd and 3rd Quarter '93.

Hauni steam tunnel recommendations due 3/31 with implementation in 1st Quarter '93.

Expanded BRICA components by conventional methods have now been scheduled for 4th Quarter completion.

INTERNAL: W. Bell, J. Sherron, Subjective Panels

EXTERNAL: D. Rockwell; R. Keats; M. Buchanan; T. Callahan; R. Pitts; D. Lisbon; C. Wood; J. Crump; S. Clark, M. Jeltama; D. Ennis; C. Hayes; B. Joyner; ARD, SW, Engineering, and CTSD.

2021386258

BRICA COST REDUCTION PROGRAM

Objective: Recommend methods to increase the profitability of BRICA products by \$ 0.44/1000 by the end of 1993 while maintaining subjective parity to existing PM PV products and subjective acceptability to competition PV products with analytical and physical consistency.

- A. Continue BRICA blend evolution with BRICA IV as an initial step in this process. Recommendations due 3/1 for BRICA IV blend in Basic and B&W blends.
- B. Evaluate BRICA IV blend for the Cambridge brand with POL testing if necessary. A factory trial is being conducted at CAB in late February '93.
- C. Modify casing and A/C flavors as required to maintain subjective parity and manufacturing requirements. Qualifications of reduced alcohol A/C are to be conducted in late February '93 with analytical and subjective evaluations due by 3/1. Additional modifications are on an as necessary basis.
- D. Produce and evaluate Hauni steam tunnel models both analytically and subjectively with financial justification, process definitions, equipment specifications, and product definitions due on 3/31. Factory implementation would be 1st Quarter '94.
- E. Continue investigation of alternate thermal treatments and expanded tobaccos for additional weight savings. These investigations will continue throughout '93 and result in additional recommendations to meet program objectives by the 4th Quarter '93.
- F. Analytical and subjective evaluations are to be conducted on new models as available with POL testing as available and required. Subjective monitoring of competition PV products will be conducted for comparative purposes. A POL testing schedule was established for PM and competition PV products during '93 and will be augmented by additional testing as is deemed necessary and panelists are available. The timetable will be throughout '93 and coordinated with PED.

INTERNAL: W. Bell, Subjective panels

EXTERNAL: S/W, factory, PED, Leaf, R&D Engineering, Pilot Plant, ARD, CTSD, and CT.

2021386259

DICED CUT STRIP

Objective: To investigate the use of conventional (food) processing equipment for producing small cased lamina pieces which will enhance filling power due to geometric configurations when added to a conventional blend.

- A. Purchase and install basic models in R&D SW for process investigations. This is scheduled for May '93 in SW.
- B. Evaluate in PV products as materials are available for enhanced filling power.
- C. Qualification, financial justification, and factory implementation will be determined when models have been evaluated by subjective and analytical means. Tentative schedule based on satisfactory results and needs will be late '93 or early '94.

INTERNAL: W. Bell, Subjective Panel

EXTERNAL: PM Engineering, SW, CTSD, ARD, CT, PED, R&D Engineering, and leaf.

NOTE: This is a PM Engineering Program and our portion is only as a support at present.

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2021386261

PHILIP MORRIS U. S. A.
INTER-OFFICE CORRESPONDENCE
Richmond, Virginia

To: Distribution
From: M. Jeltema
Subject: PED Projects

Date: March 16, 1993

Attached you will find a list of the projects from PED that are part of the 1993 Operation Plan. The responsible person for each project is listed. Please address any questions concerning plans or resource needs to that person.

Melissa Jeltema

MJ:f

Attachment

Distribution: C. Altizer
S. Baldwin
W. Claflin
A. Confer
R. Cox
P. Gauvin
J. Hearn
✓ R. Heretick
C. Kroustalis
J. Myracle
K. Newman
J. Smith
H. Spielberg
J. Spruill
V. Willis
G. Yatrakis

RECEIVED

MAR 1 6 1993

R. P. HERETICK

2021386262

RECORD CODE: P0622

PROJECTS
CONSUMER RESEARCH TECHNOLOGY

DOMESTIC

Understanding the Consumer

1. Determine whether smoke style questions (attitude, behavior, and lifestyle) can be used to determine interest in new concepts/issues and to segment market. *Kuesten*
2. Identify variables associated with early-stage triers of new products. *Jeltema*
3. Generate, consumer evaluate, and refine new product concepts to provide R&D and Marketing with future directions for potentially viable consumer driven products; assess the ideation procedure for future use in PM U.S.A. and International. *Callaham*
4. Determine if new packaging concepts would add value and quality to existing full-margin brands thus, potentially slowing down the switching rates from full-margin to price value. *Callaham*
5. Conduct studies to further the understanding of low sidestream and low odor efficacy and sensory cost/benefit. *Kuesten*
6. Create a communication vehicle between the sales force, R&D, and Marketing which encourages the sales force to listen for and share potential product concepts and issues. *Callaham*
7. Develop Neural Network Models for switching. *Blankinship*

2021386263

Sensory Methodology

1. Determine the relative importance of known benefits to the consumer and the cost tradeoffs that the consumer would be willing to accept for these benefits to determine whether ideas have good marketplace potential. *Jeltema*
2. Develop methods to determine the relationship between changes that will involve sensory cost and their impact on marketplace purchase. *Jeltema*
3. Define sensorially a smoker's view of deep discount brands. *Manwaring*
4. Obtain consensus on Control Regions for current and future Marlboro testing. *A Smith*
5. Determine whether strength ratings are adequately described by an overall panel rating and regression based on tar per puff. *Joyner*
6. Evaluate effect of repacking mentholated cigarettes on liking/menthol ratings. *Fleming*
7. Determine factors affecting degree of liking deficit by changing tipping color. *Fleming*
8. Establish database of POL data as an accessible, usable, and reliable data management tool. *Kuesten*
9. Computerize NPP single puff sensory methodology. *Kuesten*
10. Evaluate panelists's behavior in POL testing to gain information that will help improve future test and ballot designs as well as help improve our panelist selection process. *Fleming*
11. Formulate a cross training program for designated product testing and product development personnel. *Manwaring*
12. Evaluate Excel and Deltagraph to determine whether they meet the technical needs of our group. *Scott*
13. Compare NPP results versus POL results to determine how differences found from NPP single puff methodology compare to consumer test results. *Joyner*

2021386264

POL Operations

1. Recruit and maintain a panel, geographically and demographically representative by brand, to conduct 60 Marlboro Monadic Studies and 120 Global Monadic Studies.
West
2. Continuously update POL database with current information on panelists to assure returns of at least 70%.
West
3. Improve the efficiency and effectiveness of the POL Databases.
West
4. Restructure POL Database.
Radzom

Demographics

1. Determine ways for the Marlboro family to maintain its relevance among key audiences.
Johnston
2. Determine ways for the premium brands to retain or increase market share.
Johnston
3. Ensure that the discount brands are positioned to attract PM's fair share of the PV segment growth.
Johnston
4. Determine ways to maximize PM's market share in segments in which it is under-represented or in segments that are growing.
Johnston
5. Develop detailed information on smoker shares, brand choices, buying behavior, switching, quitting, incidence and consumption.
Johnston
6. Determine the impact smoking restrictions have on industry volume.
Johnston
7. Determine the impact pricing practices have on industry volume.
Johnston

2021386265

Applied Statistics

Provide consultation and assistance for the following:

PED

- Improved analyses techniques for sensory data.

Tindall

CTSD

- Improved control procedures for CI data.

R Jones

Paper Technology

- Paper specifications.

R Jones

ARD

- Analysis of analytical data.

R Jones

QA

- Estimate effects of quality issues on switching and alternate brand purchase.

Tindall

- Design, analysis, interpretation of experimental data.

Gear

NPT

- Design and analysis to characterize tobacco

Gear

2021386266

INTERNATIONAL

Understanding the Consumer

1. Identify forces that impact market share in our International markets. *Matthews*
2. Conduct/monitor in-depth research to understand consumers' attitudes, life styles, behavior, and potential interest in product benefits. *J Jones*
3. Investigate methods to generate and evaluate new product ideas; assist in the design and critique of methods for consumer evaluation of concept/prototype combinations, to refine a benefit and its execution prior to ad-pack. *J Jones*
4. Collect consumer information on product benefit themes—social acceptability, packaging—identify key issues, among whom and in what situations, relative interest in concept/product attributes. *J Jones*

Sensory Testing

1. Evaluate and implement improvements in Asian panel data collection methods. *Matthews*
2. Manage databases to improve efficiency of analyses. *Ferro*
3. Improve data presentation effectiveness. *Matthews*
4. Assure PMKK, PM Asia, and the sensory research vendors understand R&D's expectations. *Matthews*

2021386267



SENSORY METHODOLOGY

MISSION STATEMENT

Design and conduct sensory research test protocols for the evaluation of new and modifications to existing products/processes.

Objectives

1. Develop methods to quantify the cost/benefit relationship between potential product benefits and consumers' desires
2. Maintain a knowledge base of the importance to consumers of product attributes.
3. Work to continuously improve our sensory methodologies.

Consumer Research - Domestic

2021386268



SENSORY METHODOLOGY

OBJECTIVE 1

Develop methods to quantify the cost/benefit relationship between potential product benefits and consumers' desires

Strategies

1. Determine the relative importance of known benefits to the consumer and the cost tradeoffs that the consumer would be willing to accept for these benefits to determine whether ideas have good marketplace potential.

PRIORITY #1

2. Develop methods to determine the relationship between changes that will involve sensory cost and their impact on marketplace purchase.

PRIORITY #2

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Consumer Research - Domestic



SENSORY METHODOLOGY

OBJECTIVE 1

Strategy 1: Determine the relative importance of known benefits to the consumer and the cost tradeoffs that the consumer would be willing to accept for these benefits to determine whether ideas have good marketplace potential. **PRIORITY #1**

Tactics

1. Design cost/benefit tradeoff research.
Jeltema, Tindall, Ennis, Jones; February
2. Conduct Internal Pre-test of research to determine feasibility and refine research.
Jeltema, Tindall, Manwaring; March
3. Review findings with management and determine whether to conduct consumer research. *Jeltema, Tindall; April*
4. Conduct consumer research if warranted.
Jeltema, Tindall, Manwaring; May

Consumer Research - Domestic

2021386270



SENSORY METHODOLOGY

OBJECTIVE 1

Strategy 2: Develop methods to determine the relationship between changes that will involve sensory cost and their impact on marketplace purchase.
PRIORITY #2

Tactics

1. Review proposal for disposable testmarket research with management. Determine appropriate test models.
*Jeltema, Cox, Heretick, Myracle,
Spielberg, Tindall; June*
2. Conduct appropriate POLs if needed. *Smith; October*
3. Conduct disposable test market. *Jeltema; October*
4. Review Results and make recommendations.
Jeltema; December

Consumer Research - Domestic

2021386271



SENSORY METHODOLOGY

OBJECTIVE 2

Maintain a knowledge base of the importance to consumers of product attributes.

Strategy

1. Define sensorially a smoker's view of deep discount brands. **PRIORITY #1**
2. Obtain consensus on Control Regions for current and future Marlboro testing. **PRIORITY #1**
3. Determine whether strength ratings are adequately described by an overall panel rating and regression based on tar per puff. **PRIORITY #3**
4. Evaluate effect of repacking mentholated cigarettes on liking/menthol ratings. **PRIORITY #2**
5. Determine factors affecting degree of liking deficit by changing tipping color. **PRIORITY #3**

Consumer Research - Domestic

2021386272



SENSORY METHODOLOGY

OBJECTIVE 2

Strategy 1: Define sensorially a smoker's view of deep discount brands. **PRIORITY #1**

Tactic

Conduct POL tests of 85 and 100mm nonmenthol deep discount products.

Manwaring, Joyner, Atkinson; October

Consumer Research - Domestic

2021386273



SENSORY METHODOLOGY

OBJECTIVE 2

Strategy 2: Obtain consensus on Control Regions for current and future Marlboro testing **PRIORITY #1**

Tactics

1. Conduct monitored control testing on the Marlboro Monadic Panel to establish current test region of Marlboro.
Smith, Ruziak, White, Atkinson; June
2. Review results and obtain agreement on current control region.
Jeltema; June
3. Review Proposal for single pack, un-overtipped testing. *Box vs Soft Pack Effects*
Smith, Cox, Heretick, Jeltema, Myracle, Spielberg, Tindall; March
4. Conduct single pack testing.
Smith, Ruziak, White, Atkinson; October
5. Review results and obtain consensus on the direction of Marlboro Monadic testing for 1994.
Smith, Cox, Heretick, Jeltema, Myracle, Spielberg, Tindall; November

Consumer Research - Domestic

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SENSORY METHODOLOGY

OBJECTIVE 2

Strategy 3: Determine whether strength ratings are adequately described by an overall panel rating and regression based on tar per puff.
PRIORITY #3

Tactics

1. Using global monadic data, determine whether differences exist in the way smoker categories (full-flavor, flavor-low, ultra-low) rate strength. **Joyner, Tindall; September**
2. Develop and evaluate regression of strength scores by smoker group, tar per puff, and nicotine.
Tindall, Joyner; September
3. Evaluate tar per puff versus nicotine per puff strength regressions to determine which criteria should be used to predict strength ratings.
Joyner; June

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SENSORY METHODOLOGY

OBJECTIVE 2

Strategy 4: Evaluate effect of repacking mentholated cigarettes on liking/menthol ratings.

PRIORITY #2

Tactics

1. Review previous history (any data already compiled).
Fleming; Complete
2. Review standard ways of handling competitive products versus our products/experimentals.
Fleming, Atkinson, Birdsong; Complete
3. Review analyticals after repacking.
Fleming, Atkinson; August
4. Conduct tests, if warranted, of several of our brands which can be ordered and made in semiworks using smokers of those brands.
Fleming, Atkinson; November

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SENSORY METHODOLOGY

OBJECTIVE 2

Strategy 5: Determine factors affecting degree of liking deficit by changing tipping color. **PRIORITY #3**

Tactics

1. Review previous history (any data already compiled).
Fleming; Complete
2. Review liking scores for current competitive tests for each smoker group in the 85mm and 100mm panels (menthol and nonmenthol).
Fleming; September
3. Look at means of reviewing each smoker's contour with and without his own tipping color through the use of neural network (menthol only).
Fleming; Complete
4. Review demographics for each smoker group (or across smoker groups if warranted) to determine whether changes are due to brand groups' age, sex, or both.
Fleming; January, 1994

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SENSORY METHODOLOGY

OBJECTIVE 3

Work to continuously improve our sensory methodologies.

Strategies

1. Establish database of POL data as an accessible, usable, and reliable data management tool. **PRIORITY #1**
2. Computerize NPP single puff sensory methodology. **PRIORITY #1**
3. Evaluate panelists's behavior in POL testing to gain information that will help improve future test and ballot designs as well as help improve our panelist selection process. **PRIORITY #3**
4. Formulate a cross training program for designated product testing and product development personnel. **PRIORITY #2**
5. Evaluate Excel and Deltagraph to determine whether they meet the technical needs of our group. **PRIORITY #3**
6. Compare NPP results versus POL results to determine how differences found from NPP single puff methodology compare to consumer test results. **PRIORITY #3**

Consumer Research - Domestic

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SENSORY METHODOLOGY

OBJECTIVE 3

Strategy 1: Establish database of POL data as an accessible, usable, and reliable data management tool. **PRIORITY #1**

Tactics

1. Verify database by determining if all data is included and correct. Validate database by checking functions which feed new data input.
Fleming, Joyner, Kuesten, Manwaring, Scott, Smith; March
2. Review/train study leaders on use of SQL and Apt screens.
Kuesten; February
3. Input chart and program information.
Fleming, Joyner, Kuesten, Manwaring, Scott, Smith; June
4. Establish link to SAS for data analysis through SAS Access. Incorporate use of Data Prism and Data Pivot software tools. Facilitate transition to new, expanded version(s) of database.
CAD, Kuesten; May

Consumer Research - Domestic

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SENSORY METHODOLOGY

OBJECTIVE 3

Strategy 2: Computerize NPP single puff sensory methodology. *PRIORITY #1*

Tactics

1. Gain understanding of single puff test method, data analysis, and research needs for automation.
Kuesten; March
2. Build Hypercard prototype for data acquisition.
Kuesten; March
3. Select, acquire, and learn Macintosh programming environment suitable for data acquisition and analysis needs. Write program.
Kuesten; August
4. Deliver working program to NPP Panel. Extend functional capabilities of program as needed.
Kuesten; September

Consumer Research - Domestic

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SENSORY METHODOLOGY

OBJECTIVE 3

Strategy 3: Evaluate panelists's behavior in POL testing to gain information that will help improve future test and ballot designs as well as help improve our panelist selection process. **PRIORITY #3**

Tactics

1. Conduct literature search and review articles to determine whether similar studies have been conducted.
Fleming; March
2. Review responses to brand usage questions (brand update and POL tests) among switchers in current POL tests.
Fleming, Martin, West; March
3. Present proposal to conduct research on panelists' behavior in POL testing and the kinds of switching behavior they practice.
Fleming; April
4. Conduct research to obtain more in-depth information on the procedures panelists follow. *Fleming, West; May*

Consumer Research - Domestic

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SENSORY METHODOLOGY

OBJECTIVE 3

Strategy 4: Formulate a cross training program for designated product testing and product development personnel. **PRIORITY #2**

Tactics

1. Issue a training proposal for acceptance.
Manwaring/J Spruill; March 1993
2. Implement a trial cross training program that is a minimum of 6 months and maximum of 1 year.
Manwaring/J Spruill; April 1993
3. Evaluate training and future plans.
Manwaring/J Spruill; December 1993

Consumer Research - Domestic

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SENSORY METHODOLOGY

OBJECTIVE 3

Strategy 5: Evaluate Excel and Deltagraph to determine whether they meet the technical needs of our group. **PRIORITY #3**

Tactics

1. Utilize the expertise of CAD personnel, video tapes, cassette tapes, and software books to learn Excel and Deltagraph. **Scott; June**
2. Compare the two software packages to determine whether both are needed. **Scott; June**
3. Issue a report on the pros and cons of the two packages. **Scott, September**
4. Implement training sessions for our group. **Scott, December**

Consumer Research - Domestic

2021386283



SENSORY METHODOLOGY

OBJECTIVE 3

Strategy 6: Compare NPP results versus POL results to determine how differences found from NPP single puff methodology compare to consumer test results. **PRIORITY #3**

Tactics

1. Gather background information on panel methodologies.
Joyner; March
2. Develop research proposal. *Joyner, Jeltema, Ennis, Clark, T Callaham; March*
3. Obtain consensus on models and methodology.
Joyner, Hayes, T Callaham, Jeltema; May
4. Conduct testing on NPP panel and POL panel.
Joyner, Atkinson, Hayes; September
5. Present findings. *Joyner; November*

2021386284

Consumer Research - Domestic



UNDERSTANDING THE CONSUMER

MISSION STATEMENT

To collect and interpret information on consumer attitudes, lifestyles, behavior, and concept/product perceptions to determine potential R&D and PM-USA product programs and provide direction for existing programs.

Objectives

1. Design and implement programs to study and monitor consumers' issues/desires. Understand factors affecting smokers' attitudes about smoking. Identify new issues as they arise.
2. Generate and evaluate new ideas which will address consumers' issues and add value to our existing or new products.
3. Conduct research to develop models to predict consumer behavior and brand choice based on product, market, and consumer variables.

Consumer Research - Domestic

2021386285



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Design and implement programs to study and monitor consumers' issues/desires. Understand factors affecting smokers' attitudes about smoking. Identify new issues as they arise.

Strategies

1. Determine whether smokesyles questions (attitude, behavior, and lifestyle) can be used to determine interest in new concepts/issues and to segment market.
PRIORITY #1
2. Identify variables associated with early-stage triers of new products.
PRIORITY #1

2021386286

Consumer Research - Domestic



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Strategy 1: Determine whether smokesyles questions (attitude, behavior, and lifestyle) can be used to determine interest in new concepts/issues and to segment market. **PRIORITY #1**

Tactics

1. Determine whether attitude questions could be used to segment smokers as to interest in social acceptability concepts.
Jeltema, Kuesten, Callaham, J Jones; Complete
2. Review research conducted to date.
Jeltema, Bittner, Eisen, P Callaham, J Jones; March
3. Analyze data collected from LS/LO program to determine the best ways to relate attitude and lifestyle questions. Determine most useful questions to segment smokers.
Gear, Kuesten; April
4. Evaluate need for large-scale sgmentation study.
Callaham, Jeltema, Kuesten; June

Consumer Research - Domestic

2021386287



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Strategy 2: Identify variables associated with early-stage triers of new products. **PRIORITY #1**

Tactics

1. Review data from previous P.M. studies identifying innovators, including personality, trend setters, group leaders. **Bittner, Ennis, Jones, Jeltema; March**
2. Review literature on innovators. **Kuesten; April**
3. Develop Proposal for research to identify variables associated with early-stage triers. **Kuesten, Jeltema, Jones; May**

Consumer Research - Domestic

2021386288



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Generate and evaluate new ideas which will address consumers' issues and add value to our existing or new products.

Strategies

1. Generate, consumer evaluate, and refine new product concepts to provide R&D and Marketing with future directions for potentially viable consumer driven products; assess the ideation procedure for future use in PM U.S.A. and International.
PRIORITY #1
2. Determine if new packaging concepts would add value and quality to existing full-margin brands thus, potentially slowing down the switching rates from full-margin to price value.
PRIORITY #1
3. Conduct studies to further the understanding of low sidestream and low odor efficacy and sensory cost/benefit.
PRIORITY #1
4. Create a communication vehicle between the sales force, R&D, and Marketing which encourages the sales force to listen for and share potential product concepts and issues.
PRIORITY #2

2021386289

Consumer Research - Domestic



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 1: Generate, consumer evaluate, and refine new product concepts to provide R&D and Marketing with future directions for potentially viable consumer driven products; assess the ideation procedure for future use in PM U.S.A. and International. **PRIORITY #1**

Tactics

1. Generate product concepts and potential benefits via brainstorming session and follow-up working meeting.
P Callaham, J Jones, Cutler, Gauvin, Gee, Lynn, Mahan, Spielberg, Spruill, Stevens, Patton; /February
2. Write 75 to 150 concept statements to be used for core concept screening.
P Callaham, J Jones, Stevens; February
3. Consumer screen concepts/benefits via sort and rank.
P Callaham, J Jones, Stevens; March

2021386290

Consumer Research - Domestic



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 1: Generate, consumer evaluate, and refine new product concepts to provide R&D and Marketing with future directions for potentially viable consumer driven products; assess the ideation procedure for future use in PM U.S.A. and International. (continued) **PRIORITY #1**

Tactics (continued)

4. Utilize team along with the consumer for the generation of effective concepts (repetitive team/consumer sessions).
P Callaham, J Jones, Cutler, Gauvin, Gee, Lynn, Mahan, Spielberg, J Spruill, Stevens; April
5. Determine if all components of the concept work together and do not hinder the acceptability of the concept. At the same time an overall evaluation of each concept is determined. *P Callaham, J Jones, Stevens; May*
6. Review and assess the value of the concept ideation procedure. *Callaham, J Jones, Cutler, Gauvin, Gee, Lynn, Mahan, Spielberg, Spruill, Stevens; June*

Consumer Research - Domestic

2021386291



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 2: Determine if new packaging concepts would add value and quality to existing full-margin brands thus, potentially slowing down the switching rates from full-margin to price value. **PRIORITY #1**

Tactics

1. Large scale consumer research (300 one-on-one interviews) to get rating and ranking scores for the following issues:
 - Determine consumer perceived features/benefits of aluminum material and plastic material.
 - Determine if consumers prefer features/benefits of drawn aluminum to features/benefits of folded aluminum.
 - Determine the importance of all, some, or no aluminum being visible.
Callaham, J Jones, Tindall, Newsome, Wilder, Wooldridge, Altizer, Lopez; August
2. Determine the feasibility of making drawn versus folded aluminum versus plastic packaging. *Wilder, Wooldridge, Gauvin, Newsome, Gregory, Hansen; July*

Consumer Research - Domestic

2021386292



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 2: Determine if new packaging concepts would add value and quality to existing full-margin brands thus, potentially slowing down the switching rates from full-margin to price value. (continued)

Tactics (continued)

3. Communicate with New York brand managers the findings of the large scale packaging research to determine further branded research.

*J Jones, Lopez, Callaham; 1992 Research February
1993 Research September*

4. Internal usage study of modifications on the booklet pack to optimize the execution/functionality.

P Callaham, Newsome, Hansen; April

5. Plan and conduct new packaging (booklet, reclosable soft pack, cyclinder, aluminum, and plastic) research in conjunction with New York Marketing Research.

Callaham, Newsome, Gee, Lopez, Hansen; Ongoing

Consumer Research - Domestic

2021386293



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 3: Conduct studies to further the understanding of low sidestream and low odor efficacy and sensory cost/benefit. **PRIORITY #1**

Tactics

1. Determine lingering odor for control, low odor, low sidestream, and low odor/low sidestream models.
(Peryam and Kroll data) **Kuesten; February**
2. Present findings of LS/LO research to marketing.
Jeltema; February
3. Work with Marketing Research to plan extended and/or Ad/Pack research. **Jeltema, Altizer; February**
4. Conduct room odor study for the control, low odor, low sidestream, and low odor/low sidestream models at Peryam and Kroll. **Kuesten; May**
5. Continue data analysis of low odor/low sidestream study incorporating attitudes toward smoking, lifestyle, and demographic data. Determine influence of concepts (with versus without) on ratings. **Kuesten; April**

Consumer Research - Domestic

2021386294



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 4: Create a communication vehicle between the sales force, R&D, and Marketing which encourages the sales force to listen for and share potential product concepts and issues. **PRIORITY #2**

Tactics

1. Conduct interviews internally among participants in Adventure Team. **Gee, P Callaham; March**
2. Conduct interviews with sales representatives to determine categories of potential information, and pilot test for value of a large-scale mailer. **Gee, P Callaham; April**
3. Design a mailer as a vehicle for the sales force to communicate with R&D, and Marketing. **Gee, P Callaham ; May**
4. Establish the logistics of handling the information. **Gee, P Callaham; May**
5. Discuss with the editor of "The Force" using the "The Force" to promote the program. **Gee, P Callaham; May**
6. Periodically conduct focus groups with the sales force. **Gee, P Callaham; Ongoing**

2021386295

Consumer Research - Domestic



UNDERSTANDING THE CONSUMER

OBJECTIVE 3

Conduct research to develop models to predict consumer behavior and brand choice based on product, market, and consumer variables.

Strategy

Develop Neural Network Models for switching **PRIORITY #1**

Tactics

1. Analyze and model brand switching behavior as a function of (a) pre-switch brand attributes, (b) smoker demographics, and (c) pre-switch brand attributes and smoker demographics. **Blankinship, Johnston; Complete Blankinship, Johnston; March Blankinship, Johnston; June**
2. Develop decision support systems for user operation of brand switching models. **Blankinship; September**
3. Analyze and model alternate brand purchases as a function of smoker demographics and regular brand attributes. **Blankinship, Johnston; December**

2021386296

Consumer Research - Domestic



UNDERSTANDING THE CONSUMER

MISSION STATEMENT

To study and interpret marketplace trends and consumer attitudes, lifestyles, behavior, and concept/product perceptions to determine potential R&D and PMPI product programs and provide direction for existing programs. (Strategic Goals 1-5).

Explanatory Introduction

Consumer response to cigarette products is comprised of a sensory element, a market dynamics element, and a cognitive element. The more unique the product or product feature, the greater potential for consumer perceptions (of advantages/ disadvantages) to influence product trial and expectations. Product perceptions may be modified by marketplace trends and one's smoking behavior and lifestyle. To better guide development programs, we need to more fully understand marketplace dynamics and consumer desires.

Objectives

1. Investigate marketplace dynamics and Asian consumer lifestyles, behavior, attitudes and perceptions of product benefits to identify or create new segments and recognize market opportunities.
2. In Asian markets, evaluate product features for perceived benefits/added value, by smokers in general or by segments-- assess expectations, perceived advantages, potential disadvantages.

Consumer Research - International

2021386297



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Investigate marketplace dynamics and Asian consumer lifestyles, behavior, attitudes and perceptions of product benefits to identify or create new segments and recognize market opportunities.

Strategies

1. Identify forces that impact market share in our International markets. *→ Sales trends
switching date
etc.* **PRIORITY #1**
2. Conduct/monitor in-depth research to understand consumers' attitudes, lifestyles, behavior, and potential interest in product benefits. **PRIORITY #1**

Consumer Research - International

2021386298



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Strategy 1: Identify forces that impact market share in our International markets. **PRIORITY #1**

Tactics

1. Maintain updated data files and graphs, by brand and country, of market share information for Asian countries in which we have on-going consumer panels (Japan, Hong Kong, Korea, Malaysia).

Purvis, Matthews; December

2. Establish and maintain data files, by brand and country, of market share information for Australia, Philippines, Singapore, Taiwan, and Brazil.

Purvis, Matthews, Ferro; December

2021386239

Consumer Research - International



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Strategy 2: Conduct/monitor in-depth research to understand consumers' attitudes, lifestyles, behavior, and potential interest in product benefits. **PRIORITY #1**

Tactics

1. Propose and conduct qualitative research in Japan on consumers' reactions to low smoke/odor concepts and prototypes.
J Jones, Matthews, Export PD, PMKK, ASI; July
2. Review existing qualitative and quantitative information to profile Caster family smokers; discuss insights with PMKK; determine what additional information is necessary and propose methods for obtaining those data.
J Jones, Matthews, Purvis, PMKK, Export PD; July
3. Design a procedure to assess Hong Kong and Korea smokers' interest in various product benefits by lifestyle, smoking behavior, demographics.
J Jones, Matthews, Export PD, PMKK, PM Asia; September

2021386300

Consumer Research - International



UNDERSTANDING THE CONSUMER

OBJECTIVE 1

Strategy 2: Conduct/monitor in-depth research to understand consumers' attitudes, lifestyles, behavior, and potential interest in product benefits. (continued)

Tactics (continued)

4. Review Japan information on Frontier Lights smokers; identify methods to obtain additional information on the choice process and benefit perceptions important in brand switching.
J Jones, Matthews, Export PD, PMKK; July
5. In Japan, propose research to assess consumers' brand choice attributions, thereby identifying salient product and packaging benefits.
J Jones, Matthews, Export PD, PMKK; July

2021386301

Consumer Research - International



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

In Asian markets, evaluate product features for perceived benefits/added value, by smokers in general or by segments--assess expectations, perceived advantages, potential disadvantages.

Strategies

1. Investigate methods to generate and evaluate new product ideas; assist in the design and critique of methods for consumer evaluation of concept/prototype combinations, to refine a benefit and its execution prior to ad-pack. **PRIORITY #1**
2. Collect consumer information on product benefit themes--social acceptability, packaging--identify key issues, among whom and in what situations, relative interest in concept/product attributes. **PRIORITY #2**

2021386302



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 1: Investigate methods to generate and evaluate new product ideas; assist in the design and critique of methods for consumer evaluation of concept/prototype combinations, to refine a benefit and its execution prior to ad-pack.

PRIORITY #1

Tactics

1. Evaluate P&G concept ideation methodology in U.S. trial; suggest potential modifications for PMKK applications.
J Jones, PMKK; July
2. In conjunction with PM Asia, propose methods for concept/prototype testing (PanAsia menthol).
J Jones, PM Asia, Export PD; July

2021386303

Consumer Research - International



UNDERSTANDING THE CONSUMER

OBJECTIVE 2

Strategy 2: Collect consumer information on product benefit themes—social acceptability, packaging—identify key issues, among whom and in what situations, relative interest in concept/product attributes.

PRIORITY #2

Tactics

1. Design and conduct a series of focus groups in Japan, among potential segments, following pre-placement of sidestream modified products.
J Jones, Export PD, PMKK, ASI; July
2. Design and conduct a low smoke/low odor extended use study, with concept, to assess product opportunities in Japan. *J Jones, Matthews, Export PD, PMKK; October*
3. Propose and conduct new packaging qualitative research in Japan to assess attributes viewed as potential benefits.
J Jones, Matthews, Export PD, PMKK; July

Consumer Research - International

2021386304



SENSORY TESTING

MISSION STATEMENT

Design and conduct sensory research test protocols for the evaluation of new and modifications to existing products/processes.

Explanatory Introduction

Consumer panels provide important sensory information on marketplace products and on models for development programs. We evaluate and implement ways to improve methodologies for data collection, analysis, and presentation to ensure the effectiveness of sensory testing. These sensory data, coupled with market share and switching information, provide a means of identifying and anticipating market trends to guide future development programs.

Objectives

1. Conduct studies of theoretical and applied methodological sensory research to ensure the validity, reliability and effectiveness of PM-International's subjective testing program.
2. Maintain external consumer panels to conduct sensory research.

2021386305

Consumer Research - International



SENSORY TESTING

OBJECTIVE 1

Conduct research of theoretical and applied methodological sensory research to ensure the validity, reliability and effectiveness of PM-International's subjective testing program.

Strategies

1. Evaluate and implement improvements in Asian panel data collection methods. **PRIORITY #1**
2. Manage databases to improve efficiency of analyses. **PRIORITY #1**
3. Improve data presentation effectiveness. **PRIORITY #2**

2021386306



SENSORY TESTING

OBJECTIVE 1

Strategy 1: Evaluate and implement improvements in Asian panel data collection methods. **PRIORITY #1**

Tactics

1. Outline testing schedules by program, determining marketplace control products and key smoker groups. In Japan, select smoker groups by program to improve panel efficiency.
Matthews, Ferro, J Jones, Smith, Slagle, PMKK, PM Asia; April
2. Evaluate new panel performance for Malaysia and Australia; compare use of scales with that of existing panels.
*Matthews, Ferro, J Jones, PM Australia, PM Asia; Malaysia--March
Australia--April*

2021386397



SENSORY TESTING

OBJECTIVE 1

Strategy 1: Evaluate and implement improvements in Asian panel data collection methods. [continued]

Tactics [continued]

3. Assess the effect of non-sensory product features influencing sensory ratings.
*Matthews, Ferro, J Jones, PM Australia, PM Asia;
Malaysia--July
Australia--October*
4. Perform statistical analyses of procedural design parameters, with product construction/analytical factors, that potentially influence sensory response.
Ferro, Matthews, CAD; July

2021386308

Consumer Research - International



SENSORY TESTING

OBJECTIVE 1

Strategy 2: Manage databases to improve efficiency of analyses. **PRIORITY #1**

Tactics

1. Update and modify analyses programs to streamline analysis steps. **Ferro, Matthews, CAD; April**
2. Establish databases of sensory ratings and analyticals for Malaysia and Australia panels. **Purvis, Ferro, Matthews; April**
3. Monitor marketplace brand changes and modify databases to reflect updated "control product" information. **Matthews, Purvis; December**

2021386309

Consumer Research - International



SENSORY TESTING

OBJECTIVE 1

Strategy 3: Improve data presentation effectiveness.
PRIORITY #2

Tactics

1. Technology transfer of analysis methodologies.
Matthews, J Jones, Ferro; December
2. For each smoker group, plot own brand ellipse relative to major competitors and relative to its brand family extensions.
Matthews, Ferro, Purvis; December
3. Impliment procedures to project presentations on-line.
Matthews, Purvis, CAD; July

■ **Consumer Research - International** ■

2021386310



SENSORY TESTING

OBJECTIVE 2

Maintain external consumer panels to conduct sensory research.

Strategy

Assure PMKK, PM Asia, and the sensory research vendors understand R&D's expectations. **PRIORITY #1**

Tactics

1. Visit current contract research houses to review panel recruitment, maintenance, product testing protocol and data collection issues.

J Jones, Matthews, PM Asia, Hankook, MDR, ASI, Consumer Probe; December

2. Monitor processes involved in "pooling" Danchi panelists.
Matthews, PMKK, ASI; October

3. Notify vendors of all shipments, scheduling issues, and modifications in testing methods.
Matthews, Ferro, Purvis; December

Consumer Research - International

2021386311



SENSORY TESTING

OBJECTIVE 2

Strategy [continued]

Assure PMKK, PM Asia, and the sensory research vendors understand R&D's expectations.

Tactics [continued]

4. Communicate the 1993 panel testing master schedule to PM Asia management.

*Matthews, Export PD,
PM Asia, PMKK; March*

5. In conjunction with the Regions, identify research programs which require supplementing our panel compositions, and communicate requests and timetables to vendors.

*Matthews, PMKK, PM Asia,
Export PD; December*

2021386312

2021386313

PRODUCT TECHNOLOGY

WHO: RPH/CBA-GNY-MAJ-JAJ-RJM-VEW

WHAT:

Low Smoke/Low Odor	CBA-MAJ
All Lamina	GNY-MAJ
Distinctive Flavors	GNY-JAJ
Packaging Development (Aluminum/Booklet)	CBA-JAJ
Cigarette Design Model <i>integration form</i>	RJM
All Recon Cigarette	VEW
OV Consolidation	RPH / W.C.

2021386314

Product Technology



Pack OV Target Consolidation

Objective

Establish A Procedure For Determining 24 Pack OV Targets On A Consistent Basis For All Current And New Products

Overall Procedure

Develop 24 Hour Pack OV Targets That Are Based Upon The Premise That Each Blend Component, Regardless Of The Remainder Of The Blend, Should Be Packed At The Same OV In All Products That Have That Component.

That OV Should Be What That Component Wants To Be On The Manufacturing Floor; Nominally 57% RH/75° F.

2021386315



Product Technology



Example

STANDARD BLEND

<u>Component</u>	<u>%</u>	<u>Equil. OV %</u>	<u>% In Blend</u>	<u>O.V. At 13.0 Pack</u>	<u>% In Blend</u>
DBC Bright	20	13.9	2.8	12.9	2.6
DBC Burley	25	13.2	3.3	12.3	3.1
ET	12	12.1	1.4	11.2	1.3
MT Oriental	15	14.6	2.2	13.6	2.1
RCB	7	16.6	1.2	15.4	1.1
RLTC	8	13.6	1.1	12.6	1.0
RLB	8	15.4	1.2	14.3	1.1
ESB	5	14.6	0.8	13.6	0.7
Blend		<u>14.0</u> (60% RH) (75°F)	<u>14.0</u>	<u>13.0</u> (57% RH)	<u>13.0</u> Pack OV

MERIT ULTIMA

DBC Bright	17	13.9	2.4	12.9	2.2
DBC Burley	23	13.2	3.0	12.3	2.8
RLTC	10	13.6	1.4	12.6	1.3
JET	50	11.9	6.0	11.0	5.5
Blend			<u>12.8</u>		<u>11.8</u> Pack OV



2021386316

Product Technology



Strategies / Tactics

S1. Measure Conditions in Factories & SW

- | | |
|---|--------------------------------|
| T1. Select measurement procedure and instrumentation | 2nd Qtr. '93 |
| T2. Measure each tobacco storage and manufacturing area | 2nd Qtr. '93 |
| T3. Repeat As Needed | 3rd Qtr. '93 -
3rd Qtr. '94 |

2021386317



Product Technology



Strategies / Tactics

S2. Determine OV for each blend component at S1 conditions

- | | |
|--|--------------------------------|
| T1. Establish sampling, preparation & measurement procedures | 2nd Qtr. '93 |
| T2. Prepare or collect samples & measure OV/RH relationship | 2nd Qtr. '93 |
| T3. Repeat As Needed | 3rd Qtr. '93 -
3rd Qtr. '94 |

2021386318



Product Technology



Strategies / Tactics

S3. Determine packaging materials moisture content.

- | | |
|---|-------------------------------|
| T1. Select representative packings & sampling procedure | 2nd Qtr. '93 |
| T2 Measure moisture content "as-is" and at conditions | 2nd Qtr. '93 |
| T3 Determine tobacco - pack equilibrium @ 24 hr | 2nd Qtr. '93 |
| T4 Repeat As Needed | 3rd Qtr. 93 -
3rd Qtr. '94 |



2021386319

Product Technology



Strategies / Tactics

S4. Establish new pack OV targets

T1. Perform computations & set
tentative targets

4th Qtr. '93

T2. Stabilize or set "best average"
targets

4th Qtr. '93

2021386320



Product Technology



Strategies / Tactics

S5. Set final weigh belt targets

T1. Set tentative targets to storage conditions

4th Qtr. '93

T2 Fine tune to achieve 24 hour targets

4th Qtr. '93
and On



2021386321

Product Technology



Manpower

Group Resource	- Claflin	- 0.1 yr.
	- Gannon	- 0.2 yr.
R&D Support	- SW	- 0.25 yr.
	- CTSD	- 0.20 yr.
	- PR	- 0.20 yr.
External	- Manufacturing Operations	- 0.1 yr.
	- Operations Services	- 0.1 yr.
	- Purchasing	

2021386322



Product Technology



Objective

Design and implement an integrated modelling and database management system for Product Development.

Milestones

- | | |
|---|---------------|
| • Start Detail Requirements | April '93 |
| • All Hardware & Software Ordered | September '93 |
| • Begin User Training | September '93 |
| • Complete Modelling Program Upgrades | December '93 |
| • Begin Modelling Program Upgrades - Phase II | January '94 |
| • Online With Existing R&D Data | April '94 |
| • Online With Non-R&D Data | December '94 |

2021386323



Product Technology



Team Members

Product Development

Maher, D. Newman, Claflin

Flavor Technology

Willis

Physical Research

Kao, Nguyen

CAD

Adkins, Good, Beers

PED

CTSD

Semiworks

2021386324



cb8.2/93

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2021386325

R&D PRODUCT TECHNOLOGIES



FILTER TECHNOLOGY

- Novel Filter Development
- Tow Modifications
- Alternate Plasticizer Systems
- Selective Filtration
- Product Development Services
- Packaging Development & Support

2021386326

Filter Technology -- 1993 Project Plans

Novel Filter Development		
Priority	Responsible Person	Project Description
1	Laslie	Produce PM web with Courtaulds fibrils
1	Laslie	Evaluate H&V laminated web materials
1	Laslie	Investigate Slim PCC filter
1	Laslie	Evaluate Tencel web
1	Laslie	Evaluate hydroentangled CA webs
1	Laslie	Non-wrapped PCC evaluation
2	Newsome	Produce ring-tipped cigarette/filter product
2	Patron	Evaluate CEL on paper, PM web, PP web
2	Patron	Evaluate heat seal wrappers
2	Patron	Evaluate acid/base materials on webs
2	Patron	Identify non-woven technologies for filter use
2	Laslie	Support consumer testing of PM web
3	Laslie	Eastman CA web evaluation
3	Laslie	Evaluate processing capabilities on Decoufle machine
3	Newsome	Evaluate embossed/textilize filter wraps
3	Laslie	Produce PM web with modified cellulose fibers
3	Finley	Evaluate filter materials with improved degradation properties
3	Newsome	Investigate alternate ventilation systems/inverse recess
3	Patron	Investigate 2-phase webs
3	Patron	Investigate electret treated materials
3	Finley/ Newsome	Investigate tip constructions which improve filter degradation
3	Patron	Improve filter efficiency via increasing fiber surface area
3	Laslie	Evaluate super absorbant materials in webs
3	Finley	Support H/C tow recycling program
Tow Modifications		
Priority	Responsible Person	Project Description
1	Patron	Evaluate VCC compact tow systems
1	Laslie	Evaluate Tencel tow material
2	Patron	Investigate crimp effects of CA tow
2	Finley	Define consumer perception of tip firmness
3	Newsome	Produce fibrillated/mechanically modified CA tow

2021386327

Filter Technology -- 1993 Project Plans

Alternate Plasticizer Systems		
Priority	Responsible Person	Project Description
1	Finley	Evaluate hardening characteristics of natural glycerin-triacetin
2	Finley	Support analytical evaluation of natural glycerin-triacetin
2	Newsome	Investigate alternate mechanisms for bonding tow
2	Patron	Investigate dual PZ booth for menthol addition
2	Finley	If required, evaluate additives in natural glycerin-triacetin
2	Patron	Support Ultima Menthol Development
3	Finley	Investigate the effects of flavors in PZ
3	Finley	Evaluate new plasticizers as they become available
Selective Filtration		
Priority	Responsible Person	Project Description
1	Finley	Support CO Catalyst Development
1	Finley	Develop heterofil fibers with Celanese
3	Finley	Investigate Weyerhaeuser coated fiber technology
Product Development Services		
Priority	Responsible Person	Project Description
1	Patron	Provide web/paper converting support
2	Patron	Provide R&D prototype machinery development support
2	Patron	Provide installation, calibration, and maintenance of test
Packaging Support & Development		
Priority	Responsible Person	Project Description
1	Newsome	Develop aluminum pack technology
1	Newsome	Support focus group packaging tests
1	Newsome	Support Beta packaging requirements
2	Newsome	Support packaging innovation team
3	Newsome	Develop molded fiber pack technology

2021386328

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



KEY STRATEGIES

- Novel Filter Development
- Tow Modifications
- Alternate Hardening/Plasticizing Systems
- Selective Filtration

2021386329

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



SUPPORT FUNCTIONS

- Filter Commercialization
- Operations-Driven Objectives

2021386330

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



STRATEGY: Novel Filter Development

<u>Priority</u>	<u>Responsible Person</u>	<u>Project Description</u>
1	Laslie	Produce PM web with Courtaulds fibrils
1	Laslie	Evaluate H&V laminated web materials
1	Laslie	Investigate reduced diameter PCC filter
1	Laslie	Evaluate Tencel web
1	Laslie	Evaluate hydroentangled CA webs
1	Laslie	Non-wrapped PCC evaluation
2	Newsome	Produce ring-tipped cigarette/filter product
2	Patron	Evaluate CEL on web
2	Patron	Support heat seal wrappers/deployment
2	Patron	Evaluate acid/base materials on webs
2	Patron	Identify non-woven technologies for filter use
3	Finley	Evaluate filter materials with improved <u>degradation</u> properties
3	Finley	Support H/C tow <u>recycling</u> program
3	Finley/Newsome	Investigate tip constructions which improve filter <u>degradation</u>
3	Laslie	Eastman CA web development
3	Laslie	Evaluate processing capabilities on Decoufle machine
3	Laslie	Produce PM web with modified cellulose fibers
3	Newsome	Evaluate embossed/textilized filter wraps
3	Newsome	Investigate alternate ventilation systems/inverse recess
3	Patron	Investigate 2-phase webs
3	Patron	Investigate electret treated materials

current
environment
consumers
offens

2021386331

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



STRATEGY: Tow Modifications

<u>Priority</u>	<u>Responsible Person</u>	<u>Product Description</u>
1	Laslie	Evaluate Tencel tow material
1	Patron	Evaluate compact tow systems
1	Patron	Support NPP → effect of RTD of filter whole pull out tobacco + Reducing the RTD of the tobacco rod
2	Finley	Define consumer perception of tip firmness
2	Patron	Investigate crimp effects of CA tow
3	Newsome	Produce fibrillated/mechanically modified tow

-firmness while smoking

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FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



STRATEGY: Alternate Hardening/Plasticizing Systems

<u>Priority</u>	<u>Responsible Person</u>	<u>Project Description</u>
1	Finley	Evaluate hardening and analytical characteristics of natural glycerin-triacetin
2	Newsome	Investigate alternate mechanisms for bonding tow
2	Patron	Investigate dual PZ booth for menthol addition
3	Finley	Investigate the effects of flavors in PZ (distinctive flavors)

2021386333

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



STRATEGY: Selective Filtration

<u>Priority</u>	<u>Responsible Person</u>	<u>Project Description</u>
1	Finley	Support CO Catalyst Development
1	Finley	Develop heterofil fibers with Celanese
2	Finley	Support carbon consolidation program
3	Finley	Investigate Weyerhaeuser coated fiber technology

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FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



SUPPORT AREA: Filter Commercialization

- Merit Ultra Lights KS - Japan
- Lark Ultra KS - Japan
- Merit Lights KS - Korea (Product Conversion)
- Vendor Qualification
- Automated Filter Design

2021386335

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



SUPPORT AREA: Operations-Driven Objectives

- Porous Combining Wrap (Patron)
- Circumference Control (TBD)
- Carbon Recycling (Finley)

2021386336

**FILTER TECHNOLOGY
1993 OPERATIONAL PLANS**



Filter Technology 1993 Operational Plans

Tactical Plans and Deliverables

2021386337

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Laslie
STRATEGY: Novel Filter Development

PROJECT DESCRIPTION: Evaluate and Develop Hollingsworth & Vose Laminated Web Materials

MILESTONE

DELIVERABLE

2Q93	I.D. desirable materials; sample webs; cost/benefit analysis
3Q93	Evaluation results of laminates with Non-PP phases
3Q93	Low BW softwood phase using hydroformer

RESOURCES: Edwards, Gautam, Gauvin, Monahan, Shelton

2021386338

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Laslie
STRATEGY: Novel Filter Development
PROJECT DESCRIPTION: Evaluate and Develop Novel Web Materials Utilizing Tencel Fibers

MILESTONE

DELIVERABLE

1Q93	Evaluation results of 10 Dupont HE models
2Q93	Cost/benefit analysis; selection of models; sample filter production
3Q93	Analytical/subjective characterization; product application development

RESOURCES: Edwards, Gautam, Gauvin, Monahan, Shelton

2021386339

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Laslie
STRATEGY: Novel Filter Development

PROJECT DESCRIPTION: Evaluate and Develop PCC Filter With
Non-Wrapped Core

MILESTONE

DELIVERABLE

1Q93	Initial analytical/subjective evaluation
2Q93	Testing and modelling of NW System; design and manufacture of reconfigured system
2Q93	Cigarette evaluation; cost/benefit analysis

RESOURCES: Claflin, Deane, Monahan

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Finley
STRATEGY: Selective Filtration
PROJECT DESCRIPTION: Evaluate Hardening and Analytical Characteristics of Natural Glycerine Triacetin

MILESTONE

DELIVERABLE

4Q92

Documented characterization of NG triacetins from Celanese, Unichema

2Q93

Filter design and manufacturing support to qualify Celanese NG triacetin in production

RESOURCES: Deane, Johnson, Lam

2021386341

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Finley
STRATEGY: Selective Filtration
PROJECT DESCRIPTION: Support CO Catalyst Development

MILESTONE

DELIVERABLE

2/93	Determination of optimal amount of catalyst in development filter
3/93	Test filters/cigts. utilizing catalyst(s) for additional development testing
4Q93	Extended testing

RESOURCES: Baliga, Hsu, Kellogg, Shafer

2021386342

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Finley
STRATEGY: Selective Filtration

PROJECT DESCRIPTION: Develop Heterofil Fibers For Selective Filtration

MILESTONE

DELIVERABLE

1Q93	Confirm Polymer Screening Apparatus; Screen Polymers
2Q93	Analysis of Screening Data; selection of models of interest; confirmation of performance
3Q93	Heterofil spinning development
4Q93	Filter development using specific heterofil fibers

RESOURCES: Edwards, Gauvin

2021386343

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 1
RESPONSIBLE PERSON: Patron
STRATEGY: Tow Modifications
PROJECT DESCRIPTION: Support Filtration Requirements for NPP Development

MILESTONE

DELIVERABLE

1Q93	Determination of EFF./RTD requirements of -60mg.
2Q93	Sample filters at appropriate Eff./RTD; Analytical/Physical Cigarette testing
3Q93	Determination of Eff./RTD requirements at -100mg.

RESOURCES: Callaham, Rockwell

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 2
RESPONSIBLE PERSON: Laslie
STRATEGY: Novel Filter Development
PROJECT DESCRIPTION: Investigate and Characterize Reduced Circumference PCC Filter

MILESTONE

DELIVERABLE

1Q93

Sample AFC filters; characterization of AFC filters

2Q93

Physical modelling of RC-PCC filter system; Product Application Development

RESOURCES: Claflin, Gannon, Newman, Spruill, Wettle

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 2
RESPONSIBLE PERSON: Patron
STRATEGY: Novel Filter Development

PROJECT DESCRIPTION: Evaluate Acid/Base Materials Coated on Webs

MILESTONE

DELIVERABLE

1Q93	Review of Literature; characterization of coating system capabilities
2Q93	Production of designed web models; filter production and characterization
3Q93	Product Application Development

RESOURCES: Ford/Peters, Keritsis, Shelton

FILTER TECHNOLOGY 1993 OPERATIONAL PLANS



DETAILED PLAN

PRIORITY: 3
RESPONSIBLE PERSON: Finley
STRATEGY: Novel Filter Development

PROJECT DESCRIPTION: Evaluate Filter Materials With Improved Degradation Properties

MILESTONE

~~5/92~~ 93

~~7/92~~ 93

~~9/92~~ 93

DELIVERABLE

Sample of Eastman Improved BD Tow

Characterization of BD Tow

Initiation of BD Environmental Trials with Eastman

RESOURCES:

FILTER TECHNOLOGY PROJECT WORKSHEET

PROJECT NAME: _____ RESPONSIBLE PERSON: _____

STRATEGY WITHIN PROJECT: # _____ TACTIC WITHIN STRATEGY: # _____ PRIORITY: # _____

TACTIC DESCRIPTION: _____

STATEMENT OF OBJECTIVE:

PRODUCT APPLICATIONS:

ACTION PLANS

1- COMPLETION DATE: _____

ACTION TO BE COMPLETED:

2- COMPLETION DATE: _____

ACTION TO BE COMPLETED:

3- COMPLETION DATE: _____

ACTION TO BE COMPLETED:

4- COMPLETION DATE: _____

ACTION TO BE COMPLETED:

PERSONNEL INVOLVED FROM OTHER AREAS:

2021386348

Paper Technology

2021386349

PAPER TECHNOLOGY

WHO: RPH/SDB-HVL

WHAT:

- (1) Banded Cigarette Paper
- (2) Wood Pulp Paper Development
- (3) Reduced Sidestream Paper Development
- (4) Cigarette Paper Specifications/Consolidation
- (5) Cellulose Derivation/SS Aroma
(Commercialization At What Cost)

2021386350

Paper Technology -- 1993 Project Teams

Project	Team Leader	Resource Team Members		Other Resources
Banded Papers	H. Lanzillotti	C. Altizer S. Baldwin G. Bokelman B. Floyd N. Gautam	B. Goodman D. Newman V. Peace J. Tindall G. Yatrakis	ARD Physical Research Semiworks CTSD Product Research Engineering

2021386351

Paper Technology -- 1993 Project Teams

Project	Team Leader	Resource Team Members		Other Resources
Wood Pulp Papers	W. Geiszler	N. Gautam G. Bokelman M. White F. Emig D. Sweeney	J. Lyons-Hart J. Nawarol F. Hsu J. Pflueger <i>Nox</i>	ARD CTSD Product Research PED Semiworks Operations Services Purchasing
Paper Consolidation	W. Geiszler	W. Claflin	B. Floyd	CTSD Operations Services ARD Purchasing PED
Paper Specifications	B. Floyd	J. Tindall	S. Baldwin	QA/QE PED ARD Manufacturing Purchasing
Reduced Sidestream (Calcium Carbonate)	B. Goodman S. Tafur	S. Baldwin N. Gautam	B. Floyd J. Pflueger <i>T. C. C. C. C.</i>	ARD Product Research CTSD PED
Reduced Sidestream (Magnesium Compounds)	J. Seeman	S. Tafur B. Goodman	J. Pflueger <i>T. C. C. C. C.</i>	Product Research ARD CTSD
Cellulose Modification	S. Tafur	G. Chan	G. Bokelman	Aqualon Flavor Technology ARD
Operations Support (Tipping Papers)	W. Geiszler	B. Floyd	S. Baldwin	QA/QE KC Operations Services

Project to be removed

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WOOD PULP (Strategic Goal #1)

OBJECTIVE

Evaluate the viability of replacing flax papers with wood pulp papers for full margin brands and develop the appropriate papers, as required.

STATUS AND ISSUES

- Both short-term and long-term strategies to be pursued.
- Higher levels of sulfur-containing compounds in the pyrolyzate of wood pulps and papers compared to flax.

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WOOD PULP PAPERS ON FULL MARGIN BRANDS

PLANS

I. Short term strategy: wood/flax combinations

- | | |
|--|---------------|
| A. Identify most acceptable wood/flax combination on Marlboro | 4th Qtr. 1992 |
| B. Obtain current cost estimates in light of partnering with KC | 1st Qtr. 1993 |
| C. Conduct internal evaluation of Marlboro with wood/flax papers and standard wood pulp papers | 1st Qtr. 1993 |
| D. Review literature | 1st Qtr. 1993 |
| E. Order redesigned papers with less wood | 1st Qtr. 1993 |
| F. Evaluate papers | 2nd Qtr. 1993 |
| * Decision Point | |
| G. Conduct external consumer tests | 3rd Qtr. 1993 |
| H. Initiate implementation, if warranted | 4th Qtr. 1993 |

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WOOD PULP PAPERS ON FULL MARGIN BRANDS

PLANS

II. Evaluate pulps from alternate pulping

- | | |
|--|---------------|
| A. Obtain alternate "clean" pulps from University of Maine | Complete |
| B. Evaluate chemically and with handmade cigarettes | Complete |
| C. If warranted, obtain larger quantities of alternative clean pulps | 2nd Qtr. 1993 |
| D. Produce 30 g/m ² papers at University of Maine | 2nd Qtr. 1993 |
| E. Obtain machine-made cigarette models | 2nd Qtr. 1993 |

III. Conduct wood pulp/paper pyrolysis/combustion studies

- | | |
|---|---------------|
| A. Design additional PM experiments on pulp and paper | 1st Qtr. 1993 |
| B. Characterize pyrolysis/combustion products of sulfur-free pulps and papers | 2nd Qtr. 1993 |
| C. Develop PM capability to detect sulfur compounds in smoke | 2nd Qtr. 1993 |
| D. Complete PM experiments on sulfur compounds in smoke | 3rd Qtr. 1993 |

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WOOD PULP PAPERS ON FULL MARGIN BRANDS

PLANS

IV. Conduct pulping and bleaching experiments with vendor

- | | |
|---|---------------|
| A. Complete literature and patent searches | 1st Qtr. 1993 |
| B. File appropriate documentation (disclosures) | 1st Qtr. 1993 |
| C. Initiate discussions with K-C | 1st Qtr. 1993 |
| D. Develop plans with vendor | 2nd Qtr. 1993 |

V. If warranted, produce mill runs of designated pulps

- | | |
|---------------------------------|---------------|
| A. Select and order pulps | 3rd Qtr. 1993 |
| B. Conduct mill runs | 3rd Qtr. 1993 |
| C. Make and evaluate cigarettes | 4th Qtr. 1993 |

*Decision Point

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CIGARETTE PAPERS SPECIFICATIONS/QUALITY (Strategic Goal #1)

OBJECTIVE

To determine those cigarette papers parameters which most affect cigarette performance and manufacturing processes and set meaningful specifications and tolerances for cigarette papers.

PLANS

- | | |
|--|---------------|
| 1. Verify prediction model for low tar cigarettes. | 1st Qtr. 1993 |
| 2. Prepare change recommendations | 2nd Qtr. 1993 |
| 3. With Purchasing and Operation Services, make formal recommendation for changes to cigarette paper specifications. | 2nd Qtr. 1993 |
| 4. Monitor progress. | 4th Qtr. 1993 |

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CIGARETTE PAPER SPECIFICATIONS/COST (Strategic Goal #1)

OBJECTIVE

To consolidate three grades of 46 Coresta flax papers with elevated citrate levels used in manufacturing to one grade, and to determine whether further consolidation of the existing seven grades is feasible.

ISSUES

1. Degree of tar control required.

PLANS

- | | |
|--|---------------|
| 1. Use paper specifications model to design the required grades. | 4th Qtr. 1992 |
| 2. Produce new papers and evaluate cigarettes | 1st Qtr. 1993 |
| 3. Reassess cost/benefits for four and two papers
*Decision Point (ONE) | 1st Qtr. 1993 |
| 4. Redesign papers as required | 2nd Qtr. 1993 |
| 5. Develop implementation plan. | 3rd Qtr. 1993 |



PRODUCT WITH REDUCED SIDESTREAM VISIBILITY (Strategic Goal #3)

OBJECTIVE

To develop a proprietary cigarette wrapper which will reduce visible sidestream smoke by at least ~60% in a full circumference cigarettes, as compared to an appropriate control, with subjectives equivalent to a conventional cigarette in 1993.

STATUS AND ISSUES

Calcium Carbonate Papers

1. Low sidestream papers for Virginia Slims for 50% sidestream reduction gave acceptable product. LSS or LO are viable "value added" concepts.
2. Commercializable papers to achieve ~60% reduction designed.

Magnesium Carbonate Papers

1. Synthetic aqueous non-sol-gel papers prepared at University of Maine.

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REDUCED SIDESTREAM

PLANS

Calcium Carbonate Papers

- | | |
|---|---------------|
| 1. Obtain mill runs of selected papers to improve sidestream | 1st Qtr. 1993 |
| 2. Evaluate models made with new papers | 1st Qtr. 1993 |
| 3. Support VS LSS/LO research | 1st Qtr. 1993 |
| 4. Investigate benefit of calendaring | 1st Qtr. 1993 |
| 5. Extend evaluation of lowered porosity papers with lowered pH solutions | 2nd Qtr. 1993 |



MAGNESIUM CARBONATE PAPERS

PLANS

Magnesium Carbonate Papers

- | | |
|---|---------------|
| 1. Prepare cigarette models with aqueous non-sol-gel material | 1st Qtr. 1993 |
| 2. Evaluate visibility and initial subjective data. | 1st Qtr. 1993 |

*Preliminary Decision Point

- | | |
|--|---------------|
| 3. Continue cigarette development work for full evaluation | 2nd Qtr. 1993 |
| 4. Assess benefits of aqueous sol-gel versus aqueous non-sol-gel materials | 2nd Qtr. 1993 |

*Final decision point on "mag carbonates."

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CELLULOSE MODIFICATION

OBJECTIVE

To develop means for covalently binding flavors to cellulose for incorporation into the wet end of the papermaking process so the flavorant will be thermally released when a cigarette is smoked.

PLANS

- | | |
|--|---------------|
| 1. Continue joint development with Aqualon of synthetic approaches | 1st Qtr. 1993 |
| 2. Select a modified cellulose for scale-up | 1st Qtr. 1993 |
| *Decision Point → <u>Review</u> <i>S. Taylor</i> | |
| 3. Produce pilot scale quantities | 2nd Qtr. 1993 |
| 4. Produce machine-made paper at U. Maine | 2nd Qtr. 1993 |
| 5. Analyze paper, make cigarettes, evaluate | 3rd Qtr. 1993 |



OPERATIONS SUPPORT: TIPPING PAPER

OBJECTIVE

To support QA efforts to improve machining performance of cork-tipped brands.

PLANS

- | | |
|---|---------------|
| 1. Evaluate quality and machining differences between cork and cork-on-white tipping at Stockton Street | 2nd Qtr. 1993 |
| 2. Initiate discussions with vendors and converters on tipping paper characteristics that affect machinability on the maker | 2nd Qtr. 1993 |
| 3. Identify possible tipping paper improvements | 3rd Qtr. 1993 |
| 4. Evaluate papers with possible improvements | 3rd Qtr. 1993 |

Project Happen

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Project Happen

Program Plan

Objective

Modify Existing Brands to Affect Burn Control Zones

Mass Burn Rate in Zones < 35 mg/min.

Burn Time in Zone > 2 min.

Meet Existing Product Targets

Strategies

Phase I

Coordinate Vendor Implementation Of A Process For
The Production Of Cigarette Papers With Low
Permeability Bands

First Priority, Spray Application
Back-up, Gravure Printing

Determine Band Requirements To Affect Burn
Control And Permit Free Smolder

Develop A Cigarette Design Method To Predict
Zone Burn Conditions During Smolder And Delivery
During Smoking

Provide Prototypes For Performance Testing To
Determine Zone Burn Targets



Project Happen

Program Plan cont'd.

Phase II

Determine Blend And Flavor Requirements To Achieve
Parity With Unbanded Controls

Extend Predictive Capability To Encompass Design
Range Of Existing Products

Phase III

Design, Fabricate, Test & Evaluate Product Prototypes
Qualify Vendor Paper Banding Process
Consumer Test Prototypes
Conduct Factory Trials
Establish Specifications
Monitor Commercial Start-up



Banded Paper Production Capability

Spray Application Method

Milestones Phase I

Demonstrate And Ship Device To Vendor	<u>12/10/92</u>
Establish Feasibility On Production Machine	<u>03/01/93</u>
Modify Device For Band Parameter Adjustment And Control	<u>04/15/93</u>
Produce Experimental Papers For Paper and Cigarette Development	<u>05/01/93</u>

Milestones Phase II

Produce Experimental Papers To Extend Predictive Capability And For Product Development	<u>06/30/93</u>
Specify Banded Paper Requirements For Manufacture of Modified Products	<u>09/01/93</u>

Milestones Phase III

Install Production Scale Equipment	<u>11/30/93</u>
Complete Implementation Of Commercial Process	<u>12/30/93</u>



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Banded Paper Production Capability

Gravure Printing Method

Milestones

Establish Feasibility of Off-Line Printing on a Production Scale	<u>02/26/93</u>
Produce Banded Papers For Paper and Cigarette Development	<u>03/15/93</u>
Install Production Scale Equipment at Commercial Paper Production Site	<u>08/16/93</u>
Complete Implementation of Commercial Process	<u>12/30/93</u>

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Requirements To Affect Burn Control

Milestones Phase I

Design Response Surface Experiment	<u>12/10/92</u>
Complete Response Surface Analysis	<u>08/31/93</u>
Determine Requirements To Achieve Burn Control And Free Smolder	<u>09/03/93</u>



2021386369

Determine Zone Burn Targets

Performance Test

No Official Test Design Exists
No Official Performance Target Exists
Objective Burn Rate Is An Estimate
Phase I To Provide Design Capability So That Cigarette
And Paper Development Can Proceed Without A
Final Target
Performance Test Will Provide MBR Targets For
Product Development

Milestones Phase I

Select Prototypes For Performance Testing	<u>08/20/93</u>
Determine Preliminary Zone Burn Target	<u>09/10/93</u>



2021386370

Banded Cigarette Design

Initial Approach

Empirical Basis For Predictive Method
Response Surface Results
Correlations Between Paper Variables and Response
(Burn/Delivery)
Phase I For Full Flavor K.S. Only

Milestones

Determine Correlations Needed For Prediction	<u>06/30/93</u>
Compose And Test Predictive Method	<u>09/03/93</u>



Resource Teams And Team Leaders

Program Design and Planning	H. Lanzillotti
Joint Activities With Vendor	S. Baldwin
Cigarette Design And Modeling	D. Newman
Process Engineering	N. Gautam
Materials Analysis	G. Bokelman
Paper And Materials Processing	B. Goodman
Banded Paper Testing	N. Gautam
Prototype Fabrication	D. Newman
Dimensional Measurements And Prototype Selection	B. Goodman
Cigarette Delivery And Performance Testing	D. Newman
PED	
Flavor Technology	
Blend Development	

Other Resources

ARD

CTSD

Product Research

Semiworks



2021386372

Applied Statistics

2021386373



APPLIED STATISTICS FUNCTION

OBJECTIVE

Provide consultation and assistance in conceptualization, modelling, design, analysis, and interpretation of experiments and in modelling, analysis and interpretation of data, when requested or when needs become apparent.

2021386374



PRODUCT EVALUATION DIVISION

Chi-Square Analyses of Monadic Sensory Data

- Assist in the application of the chi-square analysis of differences between cigarette types and in familiarization of PED and Development personnel with interpretation of results.

Tindall, Quantitative Testing; March

SAS Conversion

- Plan and execute a program to convert PED users of mainframe statistical and graphical software (BMDP, Minitab, and EasyGraph) to SAS. Execution will include verification of the operation of the new SAS server and SAS installation (**June**); statistical training and training of PED members in the use of SAS (**September**); and conversion of PED statistical applications to SAS. (**December**)

Gear, R Jones, Ferro, Tindall, PED, CAD

Smokestyles Study

Assist in analyzing results from a questionnaire on smokestyles.

Gear, Callaham; April

Applied Statistics

2021366375



PRODUCT EVALUATION DIVISION [continued]

Monadic Panel Regression Analyses

- Determine whether regressions of liking ratings versus strength ratings or a combination of strength ratings and tar per puff give more useful results than the current type of regressions. Determine whether strength ratings are adequately described by an overall panel rating and regression based on tar per puff. Apply the regression procedure to menthol panels, as a possible alternative to neural networks. *Tindall, Fleming, Joyner; May*

Quantitative Measures of Benefits

- Assist in formulating, executing, and analyzing data from an approach to obtaining more quantitative measures of cigarette benefits, including consumer perceptions of the effects of smoking on smokers and nonsmokers, sensory acceptability, brand identity, price, etc. and in relating benefits to smoker characteristics. *Tindall, Jeltema; May*

2021386376

Applied Statistics



CIGARETTE TESTING

Control and Analysis Procedures

- Work with CAD and CTSD toward better CTSD control procedures leading to unbiased smoking results, fewer rejected runs, and less Monitor smoking.

R Jones, CTSD, CAD; June

Paper Studies

- Continue to work with the Paper Technology on Statistics and measurements relevant to paper specifications.

R Jones; As Requested

Process Control

- Continue to work with ARD on using water rather than OV in process control.

R Jones; As Requested

General Assistance

- Design and analyze Monitor calibrations, precision and accuracy studies of new and improved methods, and interlaboratory studies. Assist in the application of SPC procedures to routine analyses.

R Jones, CAD; As Requested

Applied Statistics

2021386377



QUALITY ASSURANCE

Survey on Reasons for Switching

- Assist in the design and analysis of a survey of POL Panel switchers to determine reasons for switching and, especially, to estimate the effects of quality issues on switching.

Tindall, Callaham, QA; May

General QA Assistance

- Continue to provide assistance to Engineering, Manufacturing, TQAF, and other quality functions in design, analysis, and interpretation of experiments and data.

Gear; As Requested

2021386378

Applied Statistics



NEW PRIMARY PROCESS

Assist in designing studies and analyzing results to characterize, and then optimize, single-component processes and to compare blending of individual components after individual processing with the usual blending during processing.

Gear, NPP; As Requested

2021386379

Applied Statistics



MISCELLANEOUS

Continue to provide statistical assistance to Analytical Research, Product Technologies, Scientific Affairs, Engineering, and other groups and Departments inside and outside R&D.

R Jones, Gear, Tindall; As Requested

2021386380

Applied Statistics

POL Operations

2021386381



POL TESTING

MISSION STATEMENT

Provide R&D with an external panel of smokers, adequate to meet testing needs, which is representative of the smoking population as a whole, demographically and by brand.

Objectives

1. Maintain external consumer panels to conduct sensory research.
2. Continuous Improvement of POL Operations.

2021386382

POL Operations



POL TESTING

OBJECTIVE 1

Maintain external consumer panels to conduct sensory research.

Strategies

1. Recruit and maintain a panel, geographically and demographically representative by brand, to conduct 60 Marlboro Monadic Studies and 120 Global Monadic Studies. **PRIORITY #1**
2. Continuously update POL database with current information on panelists to assure returns of at least 70%. **PRIORITY #1**

2021386383

POL Operations



POL TESTING

OBJECTIVE 1

Strategy 1: Recruit and maintain a panel, geographically and demographically representative by brand, to conduct 60 Marlboro Monadic Studies and 120 Global Monadic Studies. **PRIORITY #1**

Tactics

1. Determine selection criteria for each recruitment mailout based on current panel needs.
West, Warner, Jeltema; December
2. Mail out over one million recruitment letters, based on projected testing needs, to potential target panelists.
West, NAM; December
3. Evaluating methods to improve selection criteria based on switching patterns.
West, Warner, Fleming, Martin, Radzom; December

POL Operations

2021386384



POL TESTING

OBJECTIVE 1

Strategy 2: Continuously update POL database with current information on panelists to assure returns of at least 70%.
PRIORITY #1

Tactics

1. Potential target panelists will be PreScreened every two months and mailed either a Brand Update or Repoll Survey. **West, Warner, NAM; December**
2. New panelists will be welcomed to the panel with a Brand Update Survey. **West, Warner, NAM; December**
3. Panelists not responding to a POL Product Test will be sent a Tracer Letter. **West, Warner, NAM; December**

2021386385

POL Operations



POL TESTING

OBJECTIVE 2

Continuous Improvement of POL Databases.

Strategies

1. Improve the efficiency and effectiveness of the POL Databases. **PRIORITY #1**
2. Restructure POL Database. **PRIORITY #1**

2021386386

POL Operations



POL TESTING

OBJECTIVE 2

Strategy 1: Improve the efficiency and effectiveness of the POL Databases. **PRIORITY #1**

Tactics

1. Implement interactive link for all PED Databases and to other R&D Databases. **West, CAD; December**
2. Eliminate data entry of generic information shared with PED by other database users outside of PED.
West, Birdsong, CAD; December
3. Develop and propose plan to emulate current POL Database and POL Complete Database for Internal Panels (Japan, Hong Kong, Korea, Australia)
West, Jones, CAD; December

2021386387

POL Operations



POL TESTING

OBJECTIVE 2

Strategy 2: Restructure POL Database. **PRIORITY #1**

Tactics

1. Complete CAD-Phase 1 which includes new processing editors, full implementation of UPC Codes, expansion of select capabilities to allow more flexibility, and modification of key tables to enhance maintenance capabilities.
West, CAD; June
2. Completion of CAD-Phase 2 which includes the evaluation and implementation of end-user database access and analysis tools.
West, Kuesten, CAD; December

POL Operations

2021386388



POL TESTING

POL SHIPPING INFORMATION

Tests are assigned shipping slots when requested and are rescheduled when:

- Priority Test requested
- Cigarettes rejected
- Cigarettes not smoked in time by Richmond Panel to meet shipping restraints
- Conflict of brands between tests

2021386389

POL Operations



POL TESTING

TOTAL BUDGETED POL SLOTS **180**

Allocated Slots ***130***

Number of Remaining Slots ***50***

Unrequested Slots	16
Estimated Needs	34

Program

Marlboro One Pack Testing	10
MF Ultra	4
Superslims	2
Added Value	4
Generic Slims	2
VA Slims 9 to 11	2
VA Slims KS	6
Merit Ultima Menthol	2
Seville	1
Merit 6mg	1

2021386330

POL Operations

2021386391

PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

CAPABILITIES

MECHANICAL ENGINEERING AND DESIGN

→ transfer to K. Burns' group!

WEB/PAPER CONVERTING

COATING

SLITTING *• hab unit
• wide web station*

PERFORATING *→ electrostatic units
→ laser unit in semi-works*

FOIL MENTHOLATION

EMBOSSING

CALENDARING

REWINDING

HAND FABRICATION OF PROTOTYPES

(concept work)

FILTERS

PACKAGING

MODELS

2021386392

PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

RESPONSIBILITIES

WEB/PAPER CONVERTING SUPPORT

PROTOTYPE MACHINERY DEVELOPMENT

PACKAGING DEVELOPMENT AND SUPPORT

- Prototypes
- Samples for testing

INSTALLATION, CALIBRATION, AND MAINTENANCE OF
EQUIPMENT AND MACHINERY

2021366393

PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

KEY STRATEGIES

<u>PRIORITY</u>	<u>RESPONSIBLE PERSON</u>	<u>PROJECT DESCRIPTION</u>
1	NEWSOME	DEVELOP ALUMINUM PACK TECHNOLOGY
1	NEWSOME	SUPPORT CONSUMER RESEARCH PACKAGING TESTS
1	NEWSOME	SUPPORT PROJECT BETA
1	PATRON	PROVIDE WEB/PAPER CONVERTING SUPPORT
1	PATRON	SUPPORT PROJECT HAPPEN

2021386334

PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

KEY STRATEGIES (CONTINUED)

<u>PRIORITY</u>	<u>RESPONSIBLE PERSON</u>	<u>PROJECT DESCRIPTION</u>
2	NEWSOME	SUPPORT <u>PACKAGING</u> INNOVATION TEAM
2	PATRON	PROVIDE R&D PROTOTYPE MACHINERY DEV. SUPPORT
2	PATRON	PROVIDE INSTALLATION, CALIBRATION, AND MAINTENANCE OF EQUIPMENT
3	NEWSOME	DEVELOP MOLDED FIBER PACK TECHNOLOGY

2021386395

PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

DETAILED PLAN

PRIORITY : 1

RESPONSIBLE PERSON : R. NEWSOME

**PROJECT DESCRIPTION : SUPPORT CONSUMER RESEARCH
PACKAGING TESTS**

MILESTONE

DELIVERABLE

1ST QTR. 1993	PROVIDE GRAPHICS APPLICATION INFORMATION FOR DRAWN AND FOLDED ALUMINUM BOXES
2ND QTR. 1993	PROVIDE 180 FOLDED ALUMINUM PACKS WITH GRAPHICS AND 300 PLASTIC PACKS
3RD QTR. 1993	SUPPORT EFFORTS TO APPLY GRAPHICS TO DRAWN ALUMINUM PACKS
3RD QTR. 1993	PROVIDE ASSISTANCE IN THE FIELD DURING ALUMINUM PACK TESTING

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PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

DETAILED PLAN

PRIORITY : 1

RESPONSIBLE PERSON : G. PATRON

**PROJECT DESCRIPTION : PROVIDE WEB/PAPER
CONVERTING SUPPORT**

<u>MILESTONE</u>	<u>DELIVERABLE</u>
ONGOING 1993	SUPPORT OF PROJECT HAPPEN
ONGOING 1993	SUPPORT OF PAPER TECHNOLOGY
ONGOING 1993	SUPPORT OF FILTER TECHNOLOGY
ONGOING 1993	SUPPORT OF DOMESTIC PRODUCT DEVELOPMENT
ONGOING 1993	PROVIDE TECHNICAL SUPPORT TO PURCHASING AND OPERATIONS SERVICES

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PRODUCT DEVELOPMENT SERVICES

1993 OPERATIONAL PLANS

RESOURCES

INTERNAL

FILTER TECHNOLOGY

PAPER TECHNOLOGY

DOMESTIC PRODUCT DEVELOPMENT

FLAVOR TECHNOLOGY

PRODUCT EVALUATION DIVISION

EXTERNAL

R&D DEVELOPMENT ENGINEERING

ENGINEERING

PURCHASING

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